174 Four or five generations ago--it need have
131 been no farther removed in point of time--a traveler entering the South Fork valley of the Kern, in what is now east-central California, would have found throughout the length of this narrow, mountain-rimmed valley small clusters of domed willow and tule houses. In these houses, or ranging in groups over the valley and foothills, he would have been likely to encounter certain brown-skinned people, who obviously knew this region as their home.

131 Today white men's ranches dot this same val-
177 ley. Automobiles speed up and down its well-signed highroad; cowboys riding beside restless herds of range cattle, and shepherds trailing slow-moving flocks of dun-colored sheep, traverse its length. But the valley and the surrounding foothills still shelter the descendants, now few in number, of those brown-skinned Mongoloids who less than a century ago spoke a Shoshonean language exclusively, and knew nothing of agriculture and herding, of metal products and writing.

121 During three successive summers it was my
123 privilege to visit this valley, and to work with certain of the Tübatulabal Indians whose parents or grandparents had inhabited it in pre-white days. My purpose was to obtain as complete a description as possible of the manner in which the "old-timers" had lived out their lives in this region. By direct observation, questioning, obtaining genealogies and census lists, visiting former hamlet sites, collecting botanical specimens, gossiping, the aim was in part, at least, attained. The former mode of life of the Tübatulabal, in large measure existent today only in the minds of certain elderly persons, appeared upon consideration of its details to have been extremely interesting, despite its structural simplicity.

174 The Tübatulabal say that they have always
[173] lived in the region where they are found today,
[171] but, as Dr. Lowie has pointed out,[1] the absence
[173] of migration myths is a characteristic of Shoshone mythology, to which Tübatulabal mythology is fairly closely allied.[2] However, other evidence, including the economic adaptation they have made to their peculiar semidesert, semi-Californian environment, indicates that the Tübatulabal are by no means newcomers to their area, although probably they originally entered it from the desert regions to the east.

---

[1] Lowie, 233.

[2] Gayton, 1935a.

[p. 1(b)]

105 This economic adaptation of the Tübatulabal to the resources of their area is peculiarly interesting. Lacking all knowledge of agriculture, the Tübatulabal used as staple vegetable foods the natural products of two, rather than one, culture areas--the acorns of California and the piñons of the Great Basin. Similarly, their flesh foods were a combination of two varieties of wild game--the deer of California and the rabbits of the Great Basin, together with an appreciable use of fish that is more characteristic of California than of the Basin. Taken by and large, as far as the food quest was concerned the Tübatulabal might have been transplanted either over the crest of the Sierras eastward a few miles into the Great Basin desert area, or an equally short distance westward into the Great Valley of south-central California, and they could have adapted themselves with a minimum adjustment in food-gathering techniques to the resources of either of these natural areas. But there were also many varieties of plants available to the Tübatulabal within their region, of which they made no use; a few of these are listed in the following monograph. Such a list illustrates, in concrete fashion, the negative response of Tübatulabal culture to part of the floral environment and indicates selective processes at work, even in this simple culture, which materially affected the responses that the environment elicited.

In obtaining some of their foods, the Tübatulabal displayed an ingenuity that is only fully revealed when all the details of the techniques are considered. Few botanists perhaps realize that the honey dew deposited by aphids on the stalks of the common cane is capable of being collected in sufficient quantity to be made into sugary cakes, and that this was regularly done among such groups as the Tübatulabal, the Surprise Valley Paiute,[3] the Owens Valley Paiute,[4] and the more distant Yavapai and Papago groups.[5] Or that the minute saline crystals which dry weather brings out on the stems and leaves of salt grass can also be obtained in quantity, by using a technique similar to that employed for beating the honey dew off canes. Yet the Tübatulabal have been treating salt grass thus for generations, and have not yet lost their taste for this pungent plant product. Nor have they ceased to appreciate other of their "luxury" plant manufactures, including a native chewing gum, which is

● [17]

[3]Kelly, 103.

[4]Steward, 1933, 245.

[5]Yavapai and Papago (Gifford, correspondence).

[p. 1 (c)]

105 462 coiled baskets that she used as implements and food containers, and to fashion the few pots used in cooking. Her basketry work was often as fine and well-executed as her pottery was coarse and crude. Some women even went so far as to play with their technique in basketry making, and fashioned coiled jars out of long strands of strung piñons, while camping at the piñon grounds. These "piñon jars" were made in a coil technique, and were similar in shape to the small-mouthed, round-shouldered display type of jar that the Tübatulabal used to keep their clamshell disk currency in. After being made, a piñon jar was filled with loose nuts and brought home from the piñon grounds; eventually it and its contents were shelled and eaten.

105 That the Tübatulabal, in common with a few Yokuts groups, the Western Mono, and the Owens Valley Paiute, had pottery at all is somewhat of an anomaly; as a usual thing people engaged in a seminomadic, hunting-gathering type of culture lack pottery, or if they make it, have obviously borrowed the trait from near-by groups having a more complex culture. Concerning the crude gray-black unpainted ware made by Tübatulabal women, one guess about its origin might be that pottery making was a trait borrowed by the Tübatulabal from certain southern Californian groups with which the Tübatulabal have had trade contacts since early historic times at least. This facile explanation with its "common-sense" basis falls wide of the mark, however; investigation of the problem analytically soon establishes the fact that Tübatulabal pottery differs markedly from that of southern California. That the pottery-making complex as practiced by the Tübatulabal probably derived ultimately from the Southwest was suggested several years ago by Dr. Gayton;[7] a recent study of the distribution of the practice of molding and baking clay artifacts in western North America made by Heizer offers convincing evidence in support of Dr. Gayton's assumption. From northern Arizona to central California there is an almost unbroken line of continuous distribution of true pottery ware;[7a] this shows whence Tübatulabal pottery derived.

[171]

The trips the Tübatulabal made beyond the borders of their own area led them, in early historic times at least, to points a hundred miles or more west and southwestward, and somewhat shorter distances north and eastward. Men and women went on such trips, afoot, in couples or in small groups, to trade and obtain certain natural resources they had need of, that their own area lacked. Being mainly at peace with their immediate neighbors, the Tübatulabal were able to pass through alien territory with a minimum of risk from sudden attacks. By a system of silent trade they exchanged the piñons, balls of prepared tobacco, and other commodities they had brought with them, for lengths of white clamshell disks which passed as currency among all

[7] Gayton, 1929, 250. [7a] Heizer, 44.

105 and encompassed a variety of social activities. Dances were held during the nights of the fiesta, gambling games played night and day, and shamans held competitive "shooting" contests. Before daylight on the last night of the ceremony a tule image of the deceased, and all of his more prized possessions that had not been burned or destroyed immediately after his death, were cast into the flames of a large fire around which the people milled, wailing and crying. The widow or some other relative of the deceased threw shell currency and packets of piñon seeds and other goods into the crowd, and there was a lively scuffle on the part of the visitors to obtain as much of this largesse as possible. After the fire had died down the "big fiesta" was at an end, and the visitors soon left for home.

The souls of the dead lived in a land which lay toward the west; there is a "true story" which the Tübatulabal tell, of a man who once visited this region in search of his dead wife. The wide distribution of this myth, which resembles the Old World tale of Orpheus and Eurydice, over all of North America has recently been pointed out by Dr. A. H. Gayton.[8]

Sometimes, however, ghosts travel about on earth inside whirlwinds; occasionally they appear to vision seekers, and are held in high esteem by persons so fortunate as to obtain them for their guardians; sometimes they are sent by witches to sicken people. A variety of other spirits lived in the springs, streams, caves, and mountains of the region; most of these were conceived of as human in form, often dwarflike; they were not especially feared, but the Tübatulabal either tried to conciliate them, or fled from their presence when they encountered them. A concept of a supreme deity was lacking, but in the beliefs concerning jimsonweed there is an echo of the dying-god concept found in more pronounced form in southern California.

105 On the whole, Tübatulabal culture was of the
171 borderline variety, showing affiliations in its material, social, and religious aspects with the Great Basin, (South) Central California, and Southern California cultures. Some of the traits which the Tübatulabal share with tribes in these three areas may be briefly indicated; among traits shared with Basin tribes are the use of piñons, a Great Basin staple, the pitched water bottle, use of honey dew for sugar, the wooden frame cradle, the carrying net, the eagle-down dance skirt, the lack of clans, moieties, or totemism, the classification of cross and parallel cousins with brothers and sisters, the walnut-shell dice game, the round dance, the ceremonial brush enclosure, a belief that the milky way is dove's fire, the belief in water spirits, and so forth. As Dr. A. H. Gayton has recently shown, Tübatulabal mythology is predominantly of Great Basin caste (Gayton, 1935a, 588, 595). Our

[8]Gayton, 1935b, 266.

[p. 6(a)]

105 171 knowledge of the Basin cultures is as yet incomplete, so that the foregoing list of traits cannot be taken as a basis for the relative weighting of Basin influences, as against California ones, on Tübatulabal culture. Also, several of the above-mentioned traits, such as the ceremonial enclosure, the wooden frame cradle, walnut-shell dice games, are also found among South Central and Southern California tribes, but, because they probably have had their provenience in the Basin (Kroeber, Handbook, 535, 540, 655), they are included in the foregoing list.

Some of the (South) Central California traits noted for the Tübatulabal are the rejection of all reptiles as food, looped stirrer for acorn mush, chewing of tobacco with lime, shell lime, leaching buckeye nuts, the bottleneck type of basket, bride purchase, clamshell money, unit of measure of such, and name for unit, mourning ceremony, clown, meat taboo with reciprocal washing and payments, swallowing of ants wrapped in eagle down, etc. This list could be appreciably extended, but has not been because of the lack of comparable material from the Basin.

Among the Southern California traits interwoven into the fabric of Tübatulabal culture are the use of asphalt, the coiled basketry cap, presence of steatite objects in area, the dying-god concept connected with the taking of jimsonweed, the application of lighted balls of furze to cure rheumatism, and, in historic times, the introduction of the horse. Direct contact with the Southern California Chumash is known to have occurred after the founding of San Buenaventura mission; whether there was much contact between the Tübatulabal and the Chumash before that time is questionable and seems, judging by some of the traits enumerated above, improbable.

[177] From their contacts with tribes in the three areas mentioned above, the Tübatulabal borrowed, altered, and reshaped cultural traits, and gradually built up their own unique culture, the outlines of which as it existed at the beginning of the historic period have been only too imperfectly sketched in the following pages.

Turning now from the consideration of cultural elements shared by the Tübatulabal and their ethnic neighbors, the question arises whether there are any traits peculiar to the Tübatulabal alone, which can be assumed to have been formed within the group. Here our conclusions are always subject to revision by the addition of new data, but three traits deserve at this time specific mention. They are: the obtaining of lime from natural deposits, for chewing with tobacco; the manufacture of bottleneck-shaped jars from strung piñons; and the myth accounting for the sexual division of labor. None of these traits has been reported as occurring among tribes of the surrounding areas. But if we consider each of the three, we find that the claim of each to absolute uniqueness among the Tübatulabal is not free from doubt. The more usual way in which to obtain lime

105
171

for chewing with tobacco, among California tribes, was to pound up calcined shells. This method was known to the Tübatulabal and practiced by them. There is a good probability that the method of obtaining lime from natural deposits began before the whites actually settled in the Tübatulabal area, but that it was learned by the Tübatulabal from the Koso, some of whom settled, in early historic times, in the area in which the Tübatulabal procured lime from the ground. The Koso could have learned this method from white prospectors who penetrated their area to the east of the Tübatulabal at a comparatively early date. Furthermore, when we consider that slaking the burned lime with water was also claimed by the Tübatulabal to have been an aboriginal process, our suspicions concerning the trait mount. The question, then, must remain an open one at present.

The second trait, that of making jars from strung piñons, seems to have more in its favor in a claim to aboriginality. But another factor merits consideration; the jars are said to have been made in the same shape as the Tulare bottlenecks, so that what we are dealing with here is the transfer of part of a technique into another medium, rather than a totally new trait. If the jars had had a distinctive shape of their own, that, plus the fact they were made with non-basketry materials, would have strengthened their claim to originality, despite the consideration that the idea is obviously a readaptation of the coiled basketry technique. But as it stands, the only novel feature of the piñon jars is that they were made with materials which differed markedly from those generally used in basketry.

In regard to the myth, there is little need to conjecture. It bears too definitely the stamp of aboriginal Basin mythology, details concerning which we know as yet very little, to be the product from beginning to end of a single people,

105 and to be restricted solely to that group. No
171 myth collection taken from any primitive group can hope to be all-inclusive for the mythology of the entire group, and this myth has by accident doubtless been previously overlooked, both by native raconteurs and by ethnologists when they have been engaged in myth taking. The approximate distribution of the myth, when known, will be of interest, and if it is found in only one or two other tribes, with its recording will go the last unclouded claim that could be put forward for the unique character of any trait in Tübatulabal culture.

METHOD OF STUDY

101 The following ethnographic study of the Tübatulabal, a Shoshonean-speaking people of the southern Sierra Nevada foothill region of California (fig. 1), is based on field work done
[2a] near Weldon, Kern county, in the summers of 1931-
115 33 on funds provided in part by the Board of Research of the University of California. My chief

115 informants were Steban Miranda, aged 86 (father 1/2 Tübatulabal, 1/2 Palagewan; mother Tübatulabal) and Frances Philips, 68 (father Tübatulabal, mother Koso). Mrs. Estefana Miranda Salazar, 40 (father Tübatulabal, mother Yokuts), interpreted for her father, and Mrs. Legora Tungate, 45 (father Tübatulabal, mother 1/2 Tübatulabal, 1/2 Koso), for her mother, Mrs. Philips. Other informants and interpreters were Petra Nichols, 89 (father Tübatulabal, mother Palagewan); Mike Miranda, 45, Steban Miranda's son and full brother to Mrs. Salazar; Frank Chico, 30 (father Tübatulabal, mother Koso); Fernando Miranda, 47 (father Mexican, mother Tübatulabal); Rosie Pablo, 45 (father Yokuts, mother Tübatulabal); Susie Williams Nieto, 48 (father Kawaiisu, mother Tübatulabal).

101 on unaugmented Kern, as pa·lage·wan. This is term commonly used now for unaugmented Kern, but in this instance was translated as Kern River Indian. SM's use of term bears out Powers' statement, made in 1877, that "the Pal-li-ga-wo-nap [live] on Kern r.; the Ti-pa-to-la-pa on the South Fork of the Kern" (Powers, 393); Powers' information derived from member of Palagewan group, either Jose or Bill "Viejo" Chico (Powers, 394), both dead, but known to all my informants. Bancroft, 1875, on Maltby's authority, says "the Polokawynahs lived on Kern river" (Bancroft, 456). Gatschet, 1879, locates Pallegawonap E and SE of Tulare lake, on s. spurs of Sierra Nevada (U.S. Geog. Surv., 411).

173 History.- Tübatulabal say they always lived
[171] where found today; absence of migration legends is one of characteristics of Shoshone mythology
174 (Lowie, 233). On basis of specialization of their language Kroeber infers that Tübatulabal have lived in present isolated location for comparatively long period of time (Handbook, 605).
[101] Culturally Tübatulabal are borderline California-
[773] Great Basin group with probably more Great Basin traits than generally recognized; their myth-
[197] ology predominantly that of Great Basin (Gayton, 1935a, 588, 595); linguistic differentiation of Tübatulabal may turn out to be superficial in many respects (Whorf, 607); all these factors suggest that occupation of present location may not have been for such long period as Kroeber suggests.

175 First white person to visit Palagewan was
177 Garcés in 1776 (Garcés, 280); guides for Fray Pedro Font in 1776 penetrated beyond junction of Kern and South Fork of Kern r. and met Indians there (Font, 390). During next 50 yrs. trading
[797] trips to Chumash villages near Ventura brought Tübatulabal and Palagewan in contact with San Buenaventura mission (SM), founded in 1782. By 1846 white settlers established ranches among Tübatulabal in South Fork valley (Morgan, 43).
[721] In 1857 Kern r. gold rush began in Palagewan territory. During 1862 a few Tübatulabal joined Owens Valley Paiute in hostilities against whites (Chalfant, 130; SM denied this) and about this
[621] time group of Koso Indians settled in Tübatulabal area, intermarrying chiefly with Kawaiisu, how-
[727] ever (SM, FP). In 1863 between 35-40 Tübatulabal and Palagewan men massacred near Kernville by American soldiery (SM, FP; Chalfant, 146; C. F. and E. W. Voegelin). Later in same yr. fairly large band of Owens Valley Paiute captives were conducted through Tübatulabal territory on way to Sebastian military reserve (Chalfant, 152), but owing to intercession of Judge Sumner of
[241] Kernville no Tübatulabal or Palagewan were removed with them (SM, FP). Between 1865-75 Tübatulabal began to practice agriculture (SM, FP);
[657] in 1893 majority of Tübatulabal and few Palagewan survivors allotted land in South Fork and Kern valleys.

252 they gave a better flavor" (FP, ES, SM). For
824 roasting piñon cones, brush bed had to be of Artemisia tridentata Nutt. or A. cana Pursh; "you can't use any other kind; the cones get hard and won't open; with this kind they are soft, and open easily" (SM).

824 In his lifetime SM had experimented with 2
262 wild foods which proved unpalatable; one was cac-
813 tus, Opuntia basilans Engelm., flower receptacles of which he roasted but disliked because all fine hairy stickers could not be singed off and stuck to tongue; other was fruit of Cucurbita foetidissima HBK, which proved too "bitter"; this "never eaten" (FP).

262 Bulbs of wild onion, Allium peninsulare Lemmon
824 and A. hyalinum Curran, and wild garlic, A. lacunosum Watson, not eaten (SM, FP), although leaves, stalks, heads were used. Brodiaea bulbs (hocal), Brodiaea capitata Benth., B. synandra (Hol.)
• [171] Jepson, foothill floral area, not eaten; first variety important for Owens Valley Paiute (Steward, 1933, 245). Seeds of redberry (ču·nal), Rhamnus crocea ilicifolia (Kell.) Greene, and coffeeberry (opo·bul), R. californica cuspidata (Greene) Wolf, foothill floral area, rejected as food; first-mentioned variety characterized as "berries fox eats," second as "no good; bitter" (SM).

262 Animals accessible to Tübatulabal, but re-
825 jected as food, include so-called "wolf," probably
136 desert coyote, Canis estor Merriam (tĭba·ič) and (California ?) coyote (išt), because they "smell bad," fox (iklo·bal), skunk (ponihw), weasel (u·ga·bič), snakes, which included rattlesnake (šĭmĭnt), water snake (tuhat), gopher snake (tubapĭl), king snake (pokpo·go·nal), red racer (pišu·gat), lizard (šikol), bat (paca·wal), frogs (wo·hna·l, wa·ga·išt, large and small variety), land crab (ĭ·ba·kunt) which is "poisonous like a snake" (SM), turkey vulture (yo'olapĭ·n), which "smells bad," crow (akapišt), whose "meat is no good," roadrunner (ĭihyĭmbišt) who "eats lizards," hawk (lapa'apĭ·l), kingfisher, owls which included barn owl (še·gapišt), screech owl (tu·klu··lu), horned owl (muhumbišt), burrowing owl (pogoh), bluebird (a·ɣayibišt), meadowlark (u·ša·l), because "people liked them, felt sorry for them" (FP), woodpecker (ču·lušt), and yellow-hammer, because they eat piss ants (MM), tobacco worms (pi'a·gĭnt), earthworms (tuha·wal), grasshoppers (ka'awĭ·t) and other worms, grubs, in-
[171] sects (SM, FP). Horses not eaten; neighboring Koso on desert ate them (FP, SM).

Animal foods concerning which there were differences of opinion on whether edible or inedible included: grizzly bears (u·nal) eaten (SM) not eaten (FP), golden eagle (a·šawĭt) eaten (SM) not eaten (FP), dogs (pukabišt) eaten (SM, PN) not eaten (FP), sandhill and whooping cranes (wa·šal) eaten (FP) not eaten (SM), woodpeckers (culust) eaten (FP) not eaten (SM), turtles (ko·yo·t) eaten (SM) not eaten (FP), eggs (pompt) eaten
[177] (FP) "not eaten before white man came" (SM).

226
417

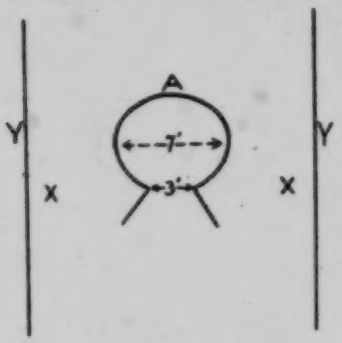

Fig. 2. Fish corral. A, wall of corral, X, men with poles, Y, banks of stream.

226 Another method of obtaining fish in large quantities was to stupefy them; roots, stalks, leaves of plant (pa·lu·l) which "looks like cane, grows in moist soil, has leaves that get reddish-yellow in fall" and which SM identified from drawing as sp. of Smilacina, mashed slightly, [171] thrown into quiet pools. Buckeye, turkey mullein, soaproot, all available to Tübatulabal and used by other tribes as fish poison, not used (SM, FP). In poisoning fish, no dam built; as fish floated to surface they were scooped up in conical twined tule baskets.

226 411 In winter fish sluggish, "hardly move"; mainly harpooned or speared from rafts in Kern r. and South Fork valley lakes by individuals. Fish spear long pole with 2 wooden points sharpened by rubbing on rock.

252 Fresh fish cleaned, roasted whole; 4 large fish often tied together, wrapped in branches of odorless willows (poyiwošt; p. 11) and cooked in ashes at fishing place; carried home in willow wrapping. Mussels cooked by roasting in shells in hot ashes. [251] Fish one of foods Tübatulabal stored for winter use.

824 137 Ethnobotany.- Botanical collections made chiefly in South Fork, Kern valleys, and surrounding foothill regions in May-July; collections checked with SM, ES chiefly. Some 220 species collected, 130 of which informants said were put to economic or medicinal uses; 56 of these ethnobotanical species belong to foothill floral area, 40 to desert floral area, 10 to Great Basin floral area; remainder general in distribution.

In identifying specimens, informants tasted, smelled plants if dubious about identification.

Of plant foods, those starred mentioned most frequently by informants; possibly these plants used most commonly for food in aboriginal times.

Nuts, large seeds (generic term, punžil) included: *Acorns (generic term, wa'ant). Six varieties used: (1) acorns (maŋi·l) from blue oak (maŋi·'u·l), Quercus douglasii H. & A., foothill floral area; these grow on n. slopes of Paiute mts. at s. borders Tübatulabal area; nuts mature annually, large, "don't taste bitter after leach-

252 wild grapes; green Digger pine nuts; seeds of
262 wild heliotrope, which "smell like piñons, taste like hot peppers"; leaves, stems of salt grass, which was eaten plain or rolled in palm of hand with clover, Cotyledon laxa, or Ellisea membranacea; leaves of Coreopsis, wild onion, and fiddle-necks; leaves and heads of wild garlic; tender leaves, stalks of clovers. Some greens, etc., gathered in quantity by women, brought home and fed to family raw; these included gooseberries, tule roots, clover species, young tender stalks of red thistle, which were gathered before plant blossomed, and mariposa lily, yambal bulbs; latter peeled and eaten raw.

252 Manzanita berries crushed with rotary motion
262 on grinding slab or in mortar, made into drink
272 as fully described by Gifford (Gifford, 1932 b, 22, pls. 4b, 5). Dried whole boxthorn berries pounded in pit mortar, treated in similar fashion. Entire plant of Indian tea and Monardella candicans, either dried or fresh, boiled for short time in water, decoction drunk; sugar now added to tea from Monardella. Salt grass put in pot, covered with water; when saline crystals had dissolved in water, grass removed and decoction drunk. Mint, which grows around springs near houses, also used occasionally for nonmedicinal
[273] tea. Fermented or intoxicating beverages formerly unknown.

222 Manufactured foods and gum.- Honey dew, which
262 is produced in summer by aphids on stalks, leaves
263 of cane (paha·bil), Phragmites communis Trin., utilized as sweet (ha·bišt). Canes cut in July, August, spread out in hot sun to dry; then heaped
258 on bearskin, "because bearskins are good and thick for beating," and flayed vigorously with hardwood stick beaters. Beating caused saccharine crystals on canes to adhere to bearskin; these crystals scraped off skin, winnowed on flat tray, put into small cooking basket, and made into stiff dough with cold water. Doughy mass removed from basket with hands, spread on twined tule tray (fig. 8a); end of tray folded over wet sweets, and tray put away for 6-7 days to allow sugary substance to dry. When dry, lumps of sweet broken off the hard brown loaf with rock and eaten dry with chia gruel. Presence of excess of carbohydrate which aphids derive from cane and are unable to assimilate, leaving it on cane as
[824] honey dew, SM accounted for as follows: "The little bugs (tohawal, generic term for insects) make the sugar on the cane, like bees, and then they fly away. They do this in summertime, about in July; they leave a sticky stuff on the cane; this dries when the cane is cut, then is beaten off by pounding the cane. The bugs aren't on the cane when it's pounded. It isn't the juice in-
• 171 side the cane the bugs get out." Use of honey dew as sweet also noted for Surprise Valley Paiute (Kelly, 103), Owens Valley Paiute (Steward, 1933, 245), Yavapai and Papago (Gifford, correspondence). Owens Valley Paiute, like Tübatulabal,

● 171 use honey dew which forms on Phragmites communis, also on rush, Juncus; Yavapai and Papago obtain it principally from willow, but also from cane.

262 Tübatulabal also occasionally sucked sections
263 of freshly cut cane for its sweetness (SM).

Saline crystals which form in dry hot weather
258 on salt grass made into "salt" (tu·t). Salt grass grows in saline areas, on valley floors, at base
137 of foothills; its utilization among Tübatulabal
824 depended on weather, as "after a rain it takes a month for salt grass to get salt again" (SM). Grass cut, spread out on mats to dry in sun; after grass thoroughly dry same process followed as described above for obtaining honey dew, save that collected crystals made up into balls or flat cakes instead of being spread on tule tray. Chunks
[272 equal to 2-3 full tablespoons broken off dry ball,
278 dissolved in cupful of water and drunk either for
757] refreshment or as laxative and to rinse out stomach. Salt-grass crystals also obtained by children who took willow switches and "swept" salt grass with them early on summer mornings; when sufficient quantity of crystals had adhered to stick, child took it to shady spot and licked off crystals. Fresh salt grass soaked in water and this
[262 water sprinkled over raw chopped clover, or sprigs
263] of salt grass and clover rolled between hands and eaten. Substance manufactured from salt grass never used to season meat or mushes.

314 Chewing gum made from milky juice of Asclepias
824 erosa Torr. (pololi·wa·bI·l); stalk of plant cut near top before it blossomed and juice collected in 4-in. tubular sections of jointed stalk of Eriogonum elongatum gramineum n. var. Stokes (ined.), (šiko·ništ). Joint of stalk served as natural stopper for bottom end of tubular section; juice run into stalk through open upper end; filled sections of stalk set in hot ashes to roast until plant juice inside has congealed; stalks then cut open, gum removed and chewed. This gum "better than store gum" (ES).

262 Meals.- Meals eaten twice daily around sunrise
264 and before sundown. At morning meal (wi·lil) and evening meal (tu·kil) men, children ate first, then women. Meat eaten at both meals, "if people
[415] had it." Men, women used spoons (ta·mil) made from antelope horn (ša·wun) for eating acorn mush (SM), or wooden spoons (FP); PN said spoons of elk, antelope horn not made. Acorn mush eaten with fingers (MM). No formula spoken before eating. Children pieced during day; "mothers gave
[753] them a cup of chia gruel" (SM). Food rarely eaten after dark as ghosts "come around at night; they
[774 might throw something in the food that would make
609] a person sick" (SM, FP). Because strangers potential enemies who might put poison in food, person avoided eating with them. Women when out for day gathering seeds, tending tobacco, etc., took lunch with them which they ate about 10 or 11 a.m.; men hunting deer "didn't take any food; they came home in the evening" (FP).

Cave, now closed, on Jesus Miranda's ranch
825 1 3/4 mi. NW of Weldon on N side of South Fork of Kern r., said by several informants to have been former abode of wild dogs. According to SM, "the Indians heard the wild dogs bark in the cave, but never saw them"; FP had "heard people talk of the wild dogs down by Miranda's," but knew nothing more about them, nor could PN give additional information.

223 Young golden eaglets (a·ɬawYt) taken from nests in steep cliffs on n. face of Nichols peak (elev. 6078 ft.). Men scaled peak on gentler sloping S side, generally taking with them boy 9, 10 years old. At top of cliffs boy was tied around waist with rope made from native twine, or put in net attached to long rope and lowered over face of cliff to nest, where he got eaglet; if parent birds attacked him he was speedily hauled back up over cliff. Grown men also sometimes lowered over cliffs thus.

231 Eaglets brought home by captors in carrying net and kept in cage (hani·la·nil) about 5 x 5 x
237 5 ft., made of willow poles; cage hung up on branch of tree outside house. Birds fed squirrels, rabbits, other meat through small door made in one side of cage; water provided in small coiled basket (hom'mobit). Wing feathers collected when bird molted; down (pi·wi·l) plucked from breast twice yearly. After being kept year or so "eagles grew so big they bit and clawed and men were afraid to handle them, so they set them free" (SM).

[223] Adult eagles snared at watering places in Greenhorn mts., in same way Owens Valley Paiute snared rabbits and wildcats (Steward, 1933, 254), except that TÜbatulabal used willow pole and scattered seeds and acorns inside loop for bait (SM). Adult eagles never kept in captivity; if not killed when caught in snare they were dispatched by owner of snare who addressed no formula to eagle, but clubbed bird to death and then plucked it (SM). Eagles and eaglets "hard to find" (SM), but any man free to get them; eyries not owned. Although eagle prominent in
[773] mythology, being chief in Mythical age, SM, FM, FP stated unequivocally that eagles were kept only in order to obtain feathers and eagle down
● [171] from them; their statements agree with data on use of eagles among Kawaiisu (Kroeber, Handbook, 608). Occasionally an eagle was made pet, but
[794] this was of no esoteric significance and traces of any bird cult (Gifford, 1932 b, 39; Kroeber, Handbook, 495) seem lacking. Kroeber's statement
231 that "condors, crows, hawks, and geese and even young coyotes were kept as pets, and sometimes inherited by the son from the father" (Handbook, 608) brought negatives from SM for all birds mentioned; "they just kept eagles" (SM). However, FM said his sister "had kept a pet crow once," but attached no esoteric significance to fact. That keeping of pets might be significant was not, however, foreign idea to informants, as they recognized that a Yokuts man who formerly lived among them had mystical bond with a rattlesnake,

291 of tanned buckskin with lacing like that on skirts at top of shoulders and from armholes down sides, and with 10 to 12-in. laced slit in front from neck downward, worn against cold (FP).

Bearskin robes with hair left on may have been worn occasionally, but were "too heavy" (SM). Feather, squirrelskin capes never made; sea-otter [439] capes not obtained in trade though SM had seen them worn by Chumash at Ventura.

292 Shamans engaged in curing, competitive con-
171 tests, and dancers wore skirts (wi·la·t) made same style as Owens Valley Paiute, Koso skirts (Steward, 1933, 347, pl. 7d; Kroeber, Handbook, 508, pl. 42a). Some dancers also wore bands of yellowhammer feathers around waist (FP).

292 Men when hunting in winter kept fingers warm, limber by putting them inside wildcatskin quiver, which had hair left on inside and was worn slung across chest.

291 Headgear and footwear.- Men went hatless; women wore coiled basketry cap (poŋgat) when using pack strap for carrying loads, but not habitually; these caps round at top, came down nearly to eyebrows. Hair nets not used. Men rarely seen now outdoors without hat; women wear them less frequently; FP habitually wore black cloth stocking cap resembling basket cap in shape. Some 60 years ago FP's aunt (Koso) made coiled hats of same material used for basketry cap, but patterned hats like "store hats"; sold these to several Tübatulabal men who wore them "all the time" (FP, SM).

292 Shamans and dancers wore feather headdress
301 consisting of fillet (še·mapun) of eagle down,
171 and crown (anambul) of magpie (?) feathers, similar to Owens Valley Paiute dancer's headdress (Steward, 1933, 347, pl. 7a, b).

291 Moccasins (wahcibΥ·l), made from tanned buck-
281 skin taken from neck region of deer "where the hide is thick" (SM); made to extend well above ankle (fig. 3). FP in cutting out model in cloth

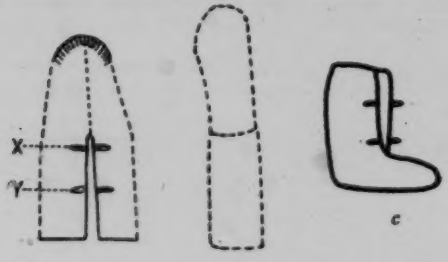

Fig. 3. Moccasin. a, side strips, puckered at toe ends; thongs at x and y; seams occur along dotted lines. b (upper half), sole, (lower half), back strip. c, completed moccasin.

(Mus. cat. no. 1-28226) first cut out sole, then sewed straight piece of cloth 6 in. long, 3 1/2 in. wide onto back section of sole and then 2 straight pieces 12 in. long, 4 in. wide on sides and front of sole, puckering 2 pieces at toe end.

[p. 22 (b)]

SHELTER

342 Semipermanent dwelling house.- Thatch or tule mat-covered dwelling house (mohošt) was circular, dome-shaped, one-family house, about 8-10 ft. high at top of dome, some 20 ft. in diameter, although for large family dimensions enlarged. Floor for house was dug out about 6-12 in. (SM), or "not dug out at all" (FP); willow poles (u·'ut) from Salix laevigata Bebb. (ha·l), about 2 in. in diameter, were stuck in ground 3 ft. or so apart to form circle; tops of poles were bent inward and attached to round hoop (olo·igin) some 2 ft. in diameter which was fastened inside at top of dome, for smoke hole. Bands (u·mat) of willows 2 in. in diameter, spliced and tied with withes when necessary, were laid horizontally 1-2 ft. apart around frame of house. Armfuls of brush from Chrysothamnus sp. (ši·bapul) were piled over frame and secured by second series of bands; outside of structure then plastered with wet clay. Finally tule mats (paht) were laid over clay; mats secured by third series of bands.

Door (yIhpal) of house faced E to catch morning sun (FM); door wicket-shaped, about 2 ft. wide, 4-4 1/2 ft. high; lower horizontal bandings on house stopped short on both sides of doorway. Tule mat hung over door; TÜbatulabal houses had no porchlike entrance way, such as Northfork [[71]] Mono houses had (Gifford, 1932 b, pls. 2b, 3c), but were similar in structure to tule house of Owens Valley Paiute (Steward, 1935, pl. 3c).

[372] Fire was built in shallow pit in center of house, immediately beneath smoke hole. Men procured willow poles and set up house frame, women gathered brush and tules, made tule mats. Mat-covered houses were "drier, and warmer" than plain brush and mud-covered houses, but "some people were too lazy to get tules" (SM, FP) so their houses lacked tule covering. Houses could be set [221] up in single day; lasted 2-4 years (MM). In winter families cooked, ate, worked, and slept in these houses.

352 House furnishings scanty; tule mats were spread on floor; beds consisted of tule mats with cylindrical heap of earth piled up under one end of mat for pillow. Bearskin, deerskin, rabbitskin blankets used for coverings; in daytime sleeping mats and coverings rolled up, shoved against side of house out of way. Man and wife slept next to each other, feet toward fire; children slept on opposite side of house, in [841] same position. Menstruating women stayed inside family living house or camp; did not occupy separate menstrual hut.

178 Most of TÜbatulabal now live during all or
342 greater part of year in one-room frame shacks;
about 20-30 years ago they built rectangular
[22] gabled houses with partitions and fireplaces which were nonaboriginal in ground plan, but constructed from native materials. Cottonwood posts were used for uprights and roof beams; tules, doubled over series of horizontal willow

178 342 bands, used for walls, and 7-in.-thick layer of tules, secured with series of willow bands inside and out, formed roof. Wreckage of such house, first used as dwelling, then as stable, standing in 1932 (pl. 6c); this house built by "Little Bill" Chico 38 years ago; MM had built similar house for his wife 27 years ago. Houses of sun-dried adobe bricks occasionally built, from 40 years ago to present time; SM frequently employed to lay out such.

349 Shades and summer shelters.- Simple shade or ramada (koma·l), still used occasionally; rectangular, built on 4-post foundation with 2 willow poles resting lengthwise in top of forked uprights; willow branches piled at right angles to these 2 top poles, to depth of 3-4 ft. These simple shades 4-6 ft. high, 6 x 8 ft. long and wide; made chiefly for women to work under during hot weather.

349 342 More elaborate type of summer shelter, referred to by same term as above, built as protection against wind; this consisted essentially of 4-pole shade, built higher and longer than ordinary ramada, with back and sides added, front left open. Series of willow poles, 1 in. or so in diameter, with small branches left on, were stuck upright in ground in straight line close to each other, between the forked uprights; these series of poles formed walls, which were banded on inside and outside with series of horizontal willow bands spaced 1-2 ft. apart. Tops of these shelters covered with willows in same manner shade covered. Families ate, slept [221] under such shelters in summer; in summer 1933 several families at Onyx rancheria using such. FM remembered having seen long rectangular communal shelter of this type, sufficiently large to accommodate several families, in use during fiestas at hot springs near Kernville in Palagewan area; women cooked at separate fires in open front part of this shelter, which faced E to get morning sun.

349 361 Camps.- At piñon grounds TÜbatulabal often camped in large group, within circular corral-like brush enclosure (ho·yat), 30-50 ft. in diameter, which had brush walls 3-4 ft. high and single entrance on E side. Supplies kept inside this enclosure and families ate and slept there in family groups.

349 Single families out gathering piñons often use shelter (mohošt, also term for dwelling house) made by leaning poles along both sides of horizontal limb of tree; these poles slope downward and outward and are covered with brush, slabs of pine bark being laid over brush to form shelter, 4-6 ft. high, which serves as storage place and as sleeping quarters in event of thunder showers (MM).

[171] On bulb-gathering expedition to desert FP had camped in single-pole greasewood shade similar to Northfork Mono shelter (Gifford, 1932 b, pl. 3b).

349 Men hunting deer in mts. camped in natural rock shelters (tĭngi·l) under overhanging ledge of rock or beneath 2 huge boulders whose tops met gable-fashion.

Women pounding meal, etc., at pit mortars on hot days piled up scrub oak or willows to height of 4-6 ft. around mortar bed, in order to have shade while working.

343 171 515 Sweat house.- Exterior of sweat house (mu·šaht) resembled that of Koso sweat house (Kroeber, Handbook, 590, pl. 56), save that door of Tübatulabal house was lower. Interior looked much like Serrano or Pass Cahuilla sweat house (Kroeber, Handbook, 596, pl. 60), according to SM.

343 515 To build sweat house, round hole some 4 ft. deep, 15 ft. wide excavated near stream or spring where artificial pool could be made. Three oak posts, 15 in. or so in diameter, 7-7 1/2 ft. high, forked at top, planted upright in straight line equidistant across pit. Ridgepole some 8 in. in diameter, 15 ft. long, set into forks of uprights. Series of smaller poles extended side by side from ridgepole to edge of pit on front, sides, back of house; these poles had bands laid down over them at 1-2-ft. intervals and brush of same variety as that used to cover houses piled on top of them, with dirt piled on top of brush. Door was in line with center upright and faced S; it was 3-3 1/2 ft. high, about 2 ft. wide, and was not hung with tule mats or any other covering because "then it would get too hot inside the sweat house" (SM). Sloping runway led from the door to floor of house. Small sweat houses with single upright pole never made (SM). "One man built sweat house; everyone used it" (SM).

343 515 372 Sweat houses heated by fire, which was made between door and middle upright; 2 firetenders (po·'anapĭ'l) sat on each side of fire, each with his oak firewood piled up in back of him near the door. These 2 men alternated in feeding fire; sometimes they "fought" each other by blowing flames toward each other and making hissing noises after adding fresh fuel to fire. Bathers sat between 4-ft.-high dirt walls of house and uprights, in circle opposite fire, or "all around the house" if group large one (fig. 6). As many as 30 persons could be accommodated in house described.

Fig. 6. Diagram of seating arrangement in sweat house. A, entrance; B, fire; C, firetenders; D, firewood; E, upright supports; x, sweat bathers.

515 Both men, women took sweat baths, women usually sweat bathing at night, before the men, "every day" (PN), "once in awhile" (SM), "whenever they wanted to" (FP). After bathing women jumped in cold water, "the same as men" (FP). [841] Men, women did not bathe together, nor did woman enter sweat house during menstrual period. Boys had to be "over 14" (PN), "about 16" (SM), to be able to stand sweat bathing; girls "about 14." There was no ceremonial significance attached to boy's or girl's first sweat bath and from early childhood children allowed to romp around inside sudatory at will when it was not in use. Adults used sweat house almost daily; sweat bathing caused one to feel "light" and "good" (FP, SM). Men and women were wont to sing when taking sweat baths which lasted, for men at least, as long as 3 hours; men took such baths in evening, sometimes after breakfast as well. While they [276] sweated, men, women smoked sparingly or chewed tobacco mixed with lime. Sometimes single men, [342] widowers, or very old men used sweat house as sleeping quarters (SM); this denied by FP. Married men always slept with their wives, however [524] (above). Hand games never played in sweat house, [171] although informants aware Owens Valley Paiute utilized their sweat houses for this; PN said [535] dances sometimes held in sudatory, but all other informants denied this; possibly PN's statement reflects Palagewan custom, as opposed to that of [276] Tübatulabal. Jimsonweed administered to small groups in sweat house (p. 5). Sudatories no [177] longer used by Tübatulabal and ruins of only one such known to me (pl. 6a); this was on Bloomfield ranch near small flat on W side of South Fork r., close to village site no. 4 (fig. 11). Entrance to this house faced E.

349 Ceremonial brush enclosure.- For dances, round
527 brush enclosure (ho·yat, also used for brush en-
535 closure at piñon grounds), with walls of willow and brush 5-6 ft. high and single entrance on NE side, built; this similar to piñon-camp enclosure (above). Visitors from different localities who were attending dance were assigned places to camp within wall of enclosure; fire built in center and dancing done around this fire (see fig. 15, p. 69). Such enclosures made by adolescent boys at order of dance manager, and appear to have been used more by Tübatulabal than Palagewan, latter using ~~flat~~-topped shade with sides (above) for camping purposes during fiestas. Covered dance house did not occur.

MEANS OF TRANSPORT

481 All traveling accomplished on foot; burdens
482 of all varieties, from firewood to babies, packed
492 on back; dogs not used for transport. Streams
501 crossed by swimming; rafts known, but used only for fishing.

482 415 Conical pack basket.- Acorns, piñons, camp equipment, firewood transported by women in conical pack baskets (wo·niht); baskets carried well up over shoulders by means of pack strap (poŋgon), center of which passed across forehead or across chest (MM); 2 ends of strap were fastened to 2 buckskin loops set into basket. Basketry cap protected forehead. Conical carrying basket said never to have been used inside carrying net (SM, PN); RP, however, remembered having seen her grandmother carrying pack basket "in some sort of net."

482 372 Firewood, if not carried by women in pack basket, was tied into load with native rope and load, attached to rope which passed over chest, carried by women on back (FP, PN). Men sometimes packed home large pieces of firewood, carrying such over shoulder (SM).

483 415 Carrying net.- Men used carrying net (tambahal) exclusively (SM), to pack home deer, other large game, also when trapping eagles; net, with burden inside, slung over one shoulder and passed downward across chest.

415 482 Basketry water bottle.- Water carried by men, women, in pitched basketry water bottles (iwat); such bottles also used for storing water at dwelling place. They were carried on back, by means of pack strap, ends of which were attached to 2 loops set into side of bottle, similar to loops on pack basket (supra). Small girls packed their own water in small pitched bottles, during trips over dry areas.

352 854 Baby carriers.- Two types of baby carriers used; babies, from time of birth up to about 5 months old, kept on small cradle (wodawlil), "just the size of a little baby." This cradle consisted of an oval frame, 21 in. or so long, with parallel rows of small willow sticks laid transversely across frame. Single oak branch, 1/2 in. in diameter, peeled, and 2 ends bound together with sinew or twine to form frame. Tules wrapped around edge of frame, and small tule mat (paht) put over transverse rods; cradle lacked hood. Infant lay on it, wrapped in soft tanned wildcatskin; when infant nursed, mother held cradle in crook of arm; carried child about in same manner. No specimen of such cradle obtained, but FP said she had made one such for youngest grandchild few years ago.

Between ages of 5 months and year, child "crawled around indoors," but if mother had work to do outside she tied baby in Y-shaped cradle (umbo·al), similar to Yokuts, Kitanemuk cradle (Kroeber, Handbook, 535, fig. 48d), save that length of stick below crotch shorter in Tübatulabal specimen. Forked branch of Fremontia californica Torrey (u'upul) peeled, used for frame (naši·la·'waga·na'). One cradle (1-28570) measures 31 1/2 in. overall, 28 in. from crotch to top, has 10 crossbars lashed to frame with

[71]

411
324

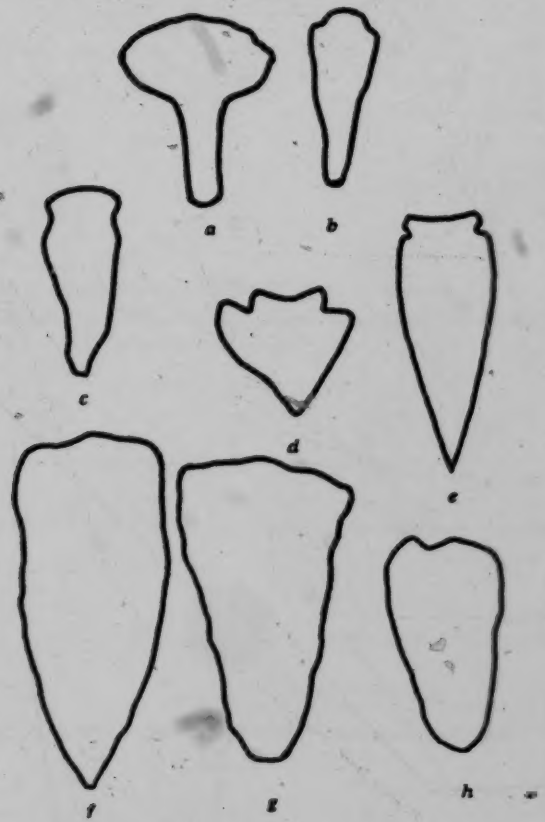

Fig. 7. Flaked artifacts from Andress collection. a, white quartz strike-a-light, 1 5/8 in. long, 1¼ in. wide; b, c, obsidian arrowheads, 1¼ in. long, 5/8-in. wide at shoulders; d, red flint arrowhead, 1 in. long, 1¼ in. wide; e, arrowhead from Nichols peak (see text); f, g, h, red flint artifacts, lengths respectively, 3¼ in., 2 3/4 in., 1 7/8 in., widths at top, respectively, 1¼ in., 1¼ in., 1 in., either spearheads (FP), unfinished arrowheads (SM), or knife blades (?).

411 wooden foreshaft used; for waterfowl, cane arrows had sinew wrapped thickly around joint where foreshaft entered cane mainshaft, so as to produce bulge which made arrow skip over water in flight, similar to Owens Valley Paiute arrows for ducks (Steward, 1933, 261, fig. 3d). Specimen 1-19909 consists in part of 2 unfeathered arrows with cane mainshafts 46 in. long, foreshafts 4 1/2 in. and 2 in. long; such arrows might have been used by boys or else are simply, as collector has noted, very poor specimens.

415 Quiver.- Sacklike quiver (ma·šat, also term for sack), made from whole untanned antelope, coyote, or wildcatskin with hair left on; men going hunting carried quiver in carrying net,

[p. 28(b)]

415 which was used later to pack back deer; if going to war, man carried quiver slung over left shoulder and tied under right arm with twine.

411 Arrow release.- Man shot either standing or kneeling; if kneeling, weight rested on left knee, which touched ground; squatting position (Kroeber, Handbook, 822, pl. 78) never assumed for shooting (SM). When standing man held bow perpendicularly; if kneeling, horizontally; primary release used in both positions (SM).

Spear.- Although SM denied spears used in warfare, MM, FP both said they were, the spear (ku·yi·l, FP) being a 4-ft. shaft of any sort of hard wood, tipped on end with an obsidian head some 10-12 in. long (MM). This head was "sharp on both edges" (FP); what may have served as spear heads are shown in outline (fig. 7f-h), although SM when shown the red flint originals, from the collection of Miss Shirley Andress, said they were unfinished arrowheads.

TOOLS

412 Knife.- Knives (pigat) used for skinning large
324 game, etc., flaked from obsidian or red quartz; 18 in. (?) long, unhafted, similar in shape to
● [171] Owens Valley Paiute knife (Steward, 1933, 261, fig. 3i). General utility knife (same term), used for cutting buckskin, shaping bow, etc., consisted of flaked obsidian blade about 5 in. long, set in wooden handle; similar to Owens
[171 Valley Paiute knife (Steward, 1933, 261, fig. 3j),
317] except that Tübatulabal set blade in handle with asphalt, did not lash it with sinew. Hafted knives aboriginal (SM).

Adz, wedge, maul.- Informants could give no information on adz, wedge, or maul; presumably these lacking. SM did not know whether trees ever felled, and if so, how; stone axe apparently lacking. Holes in wooden mortars made by burning out wood; stone mortars chipped out; "the gray stone was soft" (SM).

412 Scraper.- Entire lower leg bone of deer used as scraper (iši·bišt) to dehair skins.

Awl.- In sewing moccasins, sacks, quivers, etc., and in flaking arrowheads, knife blades,
[171] an awl (niŋa'adol) similar to Miwok awl (Kroeber, Handbook, 806, fig. 67h) used; this awl about 4 in. long, made from leg bone of deer topped
[317] with lump of asphalt; when used, strip of buck-
[462] skin (ma·pu·ništ) wound around palm of right hand; this awl essentially man's tool.
Women used smaller awl (wĭŋabĭt), shaped like man's awl, but made from spine of barrel cactus (kĭčeapĭl) surmounted with small lump of asphalt when making coiled baskets.

[p. 29(a)]

372 Fire drill.- Hearth (a·da·wa·yat) for fire-drill made from piece of dry cottonwood root (utu·lan wi·šin) from Populus fremontii; single hole in hearth; powder drained into channel leading to edge of hearth. Drill (a·da·wa·yišt) 2-2 1/2 ft. long, made from stalk of Baccharis glutinosa Pers. or B. viminea DC. Shredded cottonwood roots used for tinder.

413 Arrow straightener.- Arrow straightener (u·gišt) similar to Cahuilla straightener
[171] (Kroeber, Handbook, 530, pl. 49d); made from soft rock (steatite?; slate, FC), obtained near
324 Chimney canyon in Tübatulabal area. Central groove (loho·wi·nil) and incised lines on top surface of straightener cut with flint knife.
[71] SM's straightener, duplicate of steatite specimen from s. San Joaquin valley (Gifford and Schenck, pl. 17o), 3 in. long, 1 1/2 in. wide, 1 1/2 in. high at center, 1 in. wide at ends; single transverse groove 1/2 in. deep cut across top center, dividing convex top surface into 2 halves. Series of diagonal parallel lines, incised to depth of 1/16 in., cover one of halves of top surface; on other half series of 11 short parallel ridges cut out in low relief; incised lines and serrated ridges used for same purpose
[71] as noted among Yokuts (Kroeber, Handbook, 530). FC's straightener round, with 2 grooves; lacked incised lines, ridges; specimen 1-19802, 4 in. long, 1 1/2 in. high, has single groove, no lines; specimen 1-19803 is 4 in. long, 1/2 in. high, has 2 grooves; SM said some little individual variation in size, markings on straighteners, depending on man's preferences.

413 Netting shuttle.- No information obtainable;
286 SM thought some variety of shuttle formerly used.

FIRE

221 In winter, small fire inside dwelling served for cooking, heating, and lighting house at night;
372 in summer, cooking fire often built outside un-
373 der shade. Women also often cooked acorn mush at spot where they leached meal. During summer hand games played at night around fire, outside in open; brush enclosures illuminated at night by fire built in center; sweat house heated, illu-
[756] minated by open fire. Shamans used small open fire during shooting contests. Torches used for hunting quail (p. 13), but not for lighting.

372 Firemaking.- Fire made by men only, with simple hand drill (supra); man knelt (Kroeber,
462 Handbook, 822, pl. 78); SM said it took from
177 15-20 minutes to make fire with drill, but this seems unlikely. In 19th century Tübatulabal learned to make fire from Mexicans by striking upper edges of 2 white quartz strike-a-lights (ki·li·l) together (fig. 7a); "the Mexicans used one of these pieces of stone against a piece of

317 and W of lake region in s. San Joaquin valley, and are of opinion material was well known in lake region at least; Tübatulabal data extends area of distribution for use of asphalt eastward.

BASKETRY, WOVEN WARE, AND CORDAGE

285 Basketry.- Tübatulabal basketry "scarcely distinguishable from that of the southern Yokuts; it [171] appears to average a little better in fineness" (Kroeber, Handbook, 608). Coiled and twined ware still used to some extent, but new pieces rarely made now; U.C. museum has collection of 34 Tübatulabal baskets and basketry implements. All basketry ware manufactured, used by women with exception of tule basket fish traps, made by women, used by both men and women, and basketry tray (wa·t), article of domestic use, but also employed by shamans in shooting contests.

[462] [756]

Basket techniques were (a) coiling on multiple-rod foundation, (b) plain twining, (c) 2- and 3-rod diagonal twining. Stitches on some of finer coiled ware run 20-22 to inch, with 9-10 coils to inch. Sewing was from left to right as among Owens Valley Paiute (Steward, 1933, 346, pl. 6b); this opposite to Northfork Mono (Gifford, 1932 b, pl. 18a, b).

[171]

285 824 Split willow or tree yucca roots used for 1-2 rounds to start coiled basket; foundation material (wInapI·l) consisted of 2-3 whole stalks or 4-6 halved stalks of deer grass (mašil, weed), Epicampes rigens Benth., plus, for larger coiled ware, one small peeled shoot of redbud (kada·dihpul), Cercis occidentalis, willow (ša·hat), Salix laevigata Bebb, S. araquipa (Jeps.) Ball, or arroyo willow (ha·l), S. lasiolepsis Benth., S. lutea var. Watsonii (Bebb) Jepson. For finer coiled ware, such as trays, money jars, stalks of deer grass, the foundation materials were split in half; otherwise used whole. Deer grass gathered when green, laid out to dry, then tied up in bunches 2-3 in. in diameter and laid away until needed, grass being split when used.

Light-colored weft material (šI·l) for coiled baskets made from finely split willow roots (FP); also from finely split roots of tree yucca, which at certain seasons are light yellowish, at other times red (ES). Coiled baskets decorated in red, or red and black; red weft obtained from tree yucca roots, black material from roots of unidentified shrub (mo·nunt), which grows in wet places (PN, FP), or from antennae of pods of devil's horn, Martynia proboscoidea Glox.; latter plant, which is classified as weed, grown occasionally in gardens now, pods sometimes saved.

For one special type coiled basket (below), foundation consisted of strings of piñons strung on native twine; weft was of twine.

Warp (šI·l, also term for weft material), for plain twined baskets made from small whole or split peeled willow or redbud shoots; for diagonal twined ware same, but for some twined ware

285 small willow or cottonwood roots used. Weft for
824 various types twined ware made from whole or split peeled willow or redbud shoots, roots of tree yucca, outer bark of willow. Tules used considerably for baskets, mats; there are few tules in either Kern or South Fork valleys now, but formerly they were plentiful at certain localities, especially in South Fork valley. Warp and weft of tule baskets consisted of whole tules, which were gathered, trimmed, dried, then soaked before being used, as was all fibrous material used for basketry.

292 Coiled baskets included:

●1.71 (a) Cap, which was flat topped, resembled
285 Owens Valley Paiute (Eastern Mono) type (Kroeber, Handbook, 560, pl. 55d). Specimen 1-20960 (illustrated in O. T. Mason, 284, pl. 40), is 8 in. high, 4 1/2 in. wide at rim; design is in black and red; specimen 1-20961 (Mason, ibid.) is 7 3/4 in. high, 4 in. wide, has 14 stitches, 9 coils to inch. Caps started with yucca root; foundation consists of 2 stalks deer grass split in half; sewn with yucca. Worn by woman whenever she used pack strap, also when gathering piñons to protect hair from pitch.

415 (b) Sifter (wa·t) or small tray; slightly
285 concave on inside. Specimens 1-19821-22 are 16 1/2 in. in diameter; 1-19823-25, 15-15 3/4 in. in diameter; 1-19814, 10 1/2 in. in diameter. Coil is clockwise, looking down on inside; one specimen has foundation consisting of 6 halved stalks of deer grass and one finely split willow shoot; is sewn with yucca root. Start leaves round hole 1/4 in. in diameter in center of tray; specimen 1-19824 has piece of cloth plugged into hole at start. Of all basketry ware extant in 1932, sifters seen most frequently; uses have been referred to (ante).

(c) Parching tray (ša·gišt); was "made like a sifter, only larger"; used for parching small seeds, such as chia, with live embers.
[525] This tray may have been used also for women's dice gambling game; FP said game played on sifter, but PN said on "a pretty big basket, with rather high sides"; no specimen extant.

(d) Cooking basket (hom'mol); these were large flat-bottomed baskets with flaring sides; sizes varied, some being 22 in. tall, 11 in.
[252] wide at top, 5 in. in diameter at bottom; others smaller. Used for stone boiling, to drain manzanita cider into, as storage baskets, etc. Specimen 1-20945, 20948-50 (illustrated in O. T. Mason, 478, pl. 192) are probably cooking baskets; 1-20947, large flaring basketry bowl, 17 1/4 in. high, 8 in. in diameter at top, 4 1/4 in. at base, is labeled "to be burnt on grave," which suggests that some of baskets of this type were made for display purposes only; unfortunately I did not inquire into this matter.

(e) Basketry ladle (hom'mobit); was small shallow basket, shaped like cooking basket, only difference being one of size. Specimen 1-19813, identified by ES from sketch as ladle, is 2 1/2

415 shoulders with red yarn and mt. quail crests.
285 Specimen 1-20955 (O. T. Mason, pl. 41) lacks
[237] quail-crest decoration. These jars varied in size; base and mouth equal in diameter; specimen 1-20952 is 6 1/2 in. high, 5 1/2 in. wide at shoulder, 3 1/2 in. wide at base, mouth; specimen 1-20951 is 9 1/4 in. high, 5 1/2 in. wide at
● [171] shoulder. Shapes of Tübatulabal bottlenecks in Museum collection (fig. 8d) differ noticeably from those of Yokuts specimens (Kroeber, Handbook, pl. 50a); most of Tübatulabal specimens have straight or rounded sides instead of flaring ones and rounded instead of horizontal shoulders; however, informants immediately identified 2 Yokuts baskets in Handbook as money jars. Split stalks of deer grass used as foundation; specimen 1-20952 has 22 stitches, 9 coils to inch. Used solely as containers for strings of clamshell-disk currency (SM).

(i) Piñon jar (tïbat ukulušt); had as foundation 2 strands of piñons strung on native twine; sewed with twine. These jars similar in shape to money jar; made by women while at piñon
[482] camps (SM, ES). Strung piñons, a delicacy, put inside these jars for transportation back to hamlets.

Plain twined baskets included:

(a) Lug basket (ča·mušt), which was small conical openwork twined basket, 16-18 in. high, 10-12 in. wide at top; used for collecting piñon cones from under trees; cones later dumped in large conical pack baskets.

(b) Ovate winnowing tray (pu·'išt); specimen 1-19816, made by PN, is 22 in. long, 20 in. wide at widest point; specimen 1-19817 is 14 in. long, 12 in. wide, and is mended with yucca root in 2-rod diagonal twining at bottom end on upcurve. Such tray put to variety of uses: to win-
[252] now piñon meats from shells, to roast shelled piñons on, to pile manzanita berries on during cider making, etc.

(c) Seed beater (wa·lat); had scoop in plain openwork twining; hand end of scoop of 2-ply, handle of 3-ply, diagonal twining. Warp and handle material of peeled willow shoots; cactus roots used for weft in diagonally twined sections. Seed beaters comparatively long when new, although they might be used until handle became mere stub; specimen 1-19818 has scoop 11 in. long, 8 in. wide at center; handle 8 in. long, 4 in. broad at scoop end; specimen 1-19819 has scoop 12 in. long, 9 in. wide, with handle 6 in. long; specimen 1-19820 has smaller scoop, 8 in.
[222] long, 7 in. broad, with handle 7 in. long, 4 in. wide at base. Beaters used to knock small seeds, berries into conical seed basket.

[171] Trays for suspension, such as Yokuts made (Kroeber, Handbook, 530, pl. 50b) not manufactured by Tübatulabal (SM).

Diagonal twined baskets included:

(a) Seed basket (wili·'iništ); conical, 2-ply diagonal closely twined basket; specimen seen in field measured 16 1/2 in. in height,

415 285 16 1/2 in. in diameter; 2 willow rods (pi·mun) sewn around top for reinforcement; 2 cloth lugs attached to rim on opposite sides. Seeds, berries collected in this basket as they were knocked off bush with seed beater.

415 285 482 (b) Burden basket (wa·niht); conical, 2-ply diagonal closely twined basket, about 29 in. deep, 26 in. in diameter at top. Warp and weft of peeled willow shoots; basket banded with oak rod attached to rim with split willow shoots. Two pieces of willow, 3 in. long, sewn on inside of basket horizontally 9 in. below rim and 6 in. apart; lengths of twine attached to these pieces of willow to make 2 loops (pu·niwa·n) 6 in. long, which came through basket and hung down on outside; pack strap attached to these 2 loops. On some baskets 3 willow bands encircled basket on outside as reinforcement, being put on at top, 1/3 and 2/3 of way down. Specimen 1-19815, small burden basket made by PN, is 20 in. deep, 23 in. in diameter at top; has 2 willow rods around top, with top rod left bare except at intervals where it is stitched to rod underneath it. Rod sewn on inside basket for attaching twine loops. Uses have been mentioned (ante).

● [171] (c) Water bottle (iwat); resembled that of Kawaiisu (Kroeber, Handbook, 560, pl. 55e), but had flat base (all informants). Made in 2-ply diagonal twining with warp of whole peeled willow shoots, weft of split willow shoots; 2 loops attached to side as on burden basket, with long string which passed over carrier's forehead, fastened to loops. Bottle pitched inside and out (see section on Glue, Pitch, Asphalt); stoppered with roll of grass (pa·niŝwa·n). Small girls packed little water bottles "like the one in the picture" (Handbook, ibid.); adults larger ones, some 16 in. tall, on trips into dry country. Large bottles, often 17 in. in diameter, used to store water in at dry piñon camps and as water containers at hamlets.

[171] Tule baskets and traps were all of 2-ply diagonal twining; soft tule baskets such as Yokuts made (Kroeber, Handbook, 530, pl. 50c) not manufactured among Tübatulabal.

Tule objects included:

227 285 (a) Conical trap; some 4 ft. deep, 3 1/2 ft. wide at top, made similar to burden basket; this trap set below fall in river, secured between 2 sticks as among Owens Valley Paiute [171] (Steward, 1933, 251); set in evening and left overnight.

[171] (b) Tubular trap (wa·mat); similar in shape to Pomo trap (Kroeber, Handbook, 172, pl. 33a), but made from tules; this staked down in smooth water; "when a big fish got inside, it couldn't turn around to get out" (SM).

[171] (c) Conical scoop (či·dišt); similar in shape to Pomo trap (Kroeber, Handbook, 172, pl. 33b), but lacking inner cone and made from tules; used to scoop up stupefied fish from pools.

285 415 (d) Tule tray (ši'i·bɨ·l u·ži·l); shaped something like seed beater but with broader

285 415 handle (fig. 8a), used for drying sweet substance obtained from cane (p. 19).

[492] (e) Saddles were formerly made from tules. In contrast to twined ware, all of which was plain, all coiled ware except piñon jars had designs in red, or red and black basketry material; money jars further decorated with row of black mt. quail crests and, in post-white times, red yarn, inserted around shoulders. Pieces of abalone shell, shell or glass beads not used for decoration.

531 Either informants had forgotten them, or else few designs had names; when shown some 26 designs taken from Tübatulabal basketry collections, SM recognized 3 (fig. 9) which had descriptive names, king snake design (pokpo·go´no·lo·wun),

a b c

Fig. 9. Basket design elements. a, rattlesnake; b, little boy; c, kingsnake.

little boy design (anayhi·lo·wun), rattlesnake design (cĭmĭndĭŋlo·wun), "a hard pattern" (ES). [532] Human figure design aboriginal (SM); pictographs of human figures in territory tend to confirm this, although Kroeber holds human figures on baskets result of American influence (Kroeber, ●[171] Handbook, 541). ES recognized several Yokuts designs (Kroeber, Handbook, 533, fig. 47, nos. 1, 8, 15, 16) which she had seen on Tübatulabal baskets, but did not know names for them.

285 Mats.- Mats (paht) were made from whole dried trimmed tules, which were soaked before being woven; mats 3-5 ft. wide, of varying lengths, made in plain twined weave with each series of tule weft elements spaced about 3 in. apart. Top, bottom edges finished with tule braid (ta·ža·bil). Specimen 1-21064, large tule mat used for house covering, has braid edge, as has fragment of mat 1-28574; specimen 1-28575, also fragment, has wrap edge. Large mats used to cover walls, floors of living houses, to sit on while working outside, to sleep on. Small tule mats bordered with tule braid, but lacking weft bandings, used on both types baby cradles; hood for baby's second cradle also of tules.

281 286 Rabbitskin blanket.- Fur blankets (wihnibĭ·l) made from jackrabbit skins; woven on 4-post frame (fig. 10), chiefly by men. About 12 (SM), 40 (FP) skins needed for blanket, which was "as big as woolen double blanket" (MM), 6 x 8 ft. (SM). Jacks skinned, making cut down belly; fresh skin cut from head to tail into strips 1 1/2 in. wide, about 15 in. long; these rolled

[p. 33(a)]

281 on thigh immediately and ends tied together to
286 make long strip which was stretched between 2 trees to dry for 2-3 days (SM). FP said whole skins dried first, then cut into strips which were rolled, then tied together.

a b

Fig. 10. Rabbitskin blanket weaving frame. a, model of frame, with beginning of warp setup shown (x); b, completed warp setup.

To set up warp (fig. 10), 4 posts 3 ft. high set in ground several feet apart to form square or rectangle of same size as blanket would be; length of native twine tied around post, near top, then run around outside of 4 posts; when it was brought back to starting point twine was passed under and over string on 2 opposite sides of frame until complete warp set up. Rabbitskin weft element then tied to warp at one corner and twined under and over warp threads. SM, who set up model of frame and warp, did not know whether weft was tied to each warp at point of intersection. Blankets used as capes, bed coverings. Squirrelskin, feather blankets not made (SM, FP, PN).

531 Beadwork formerly lacking (SM); ES had learned
177 to make beaded hat bands on bow loom (Steward, 1933, 273, fig. 6) from her sister-in-law, an Owens Valley Paiute who occasionally visited among Tübatulabal.

286 Nets.- Nets made, used by men; manufactured from 2-ply native twine. Rabbit net was 200 ft. long, 3-3 1/2 ft. wide, with 3-in. loops; man's
[171] carrying net similar to Koso net (Kroeber, Handbook, 591, fig. 53): was tied at both ends with twine and had 2 ends tied together; net carried over shoulder (SM). Fish nets, according to FP, who could not remember names for them, were of 2 types (p. 14), but details of their manufacture could not be obtained.

283 Pack strap.- Pack strap (poŋgon) made from
482 native rope with forehead band (le·winiš̌t) which was flat, 1 in. wide, made from 4 strands of native twine. Used with pack basket.

Twine, cordage.- String (u·wil) made from in-
[171] ner fibers of milkweed shoots (ma·wil), Apocynum cannabinum L., foothill floral area, as among Northfork Mono (Gifford, 1932 b, 28); twine always 2-ply, but of varying thickness depending on use for which it was intended. As length of cord grew when it was being rolled out on thigh,

283 it was wrapped around left wrist. Made by men, women; used extensively for nets, fish lines, bridles, forehead band on pack strap, loops on pack basket, on water bottles, as warp for rabbitskin blankets, bowstring for rabbit bows, foundation for eagle dance skirts, to tie babies on cradles, tie newborn child's umbilical cord, as thread to sew up sacks, etc.

Rope (tu·mayu·t) made from outer bark of Fremontia californica Torrey (u·pul); long branches, trunk of shrub peeled, fresh bark softened between hands and 3 strands braided into rope which was used to lash bundles of tules together for raft, to tie up crook on piñon staves, to bundle firewood into load, for 2 ends of pack strap, etc.

LEATHERWORK

281 Tanning.- Tanning done chiefly by men, although women sometimes dehaired skins. Green hides (tu·šu·but) hung up to dry, doubled over line with skin side out, for 6-8 days. If not to be tanned immediately they were folded up, stored in house. When tanned, hide soaked in cold water 3 days (SM); MM said soaked for week, being taken out at intervals and as much hair as possible [412] pulled out with fingers. After thorough soaking, ●171] hair and fat, if any, scraped off with deer-bone scraper as among Surprise Valley Paiute (Kelly, 118). Hide put in warm water to which deer brains had been added, and soaked overnight. Next morning hide dried, then returned to brain solution, [401] soaked again for 24 hours. Hide then rinsed out in clear water, looped around post and wrung out using short stick as lever (Kelly, pl. 21a, b). Lever, with hide still tightly twisted into coil around it, stuck between pole on which hide was looped and another pole 1 ft. away and hide left thus, tightly twisted, for about 30 minutes; after this hide slipped off lever, flattened out, stretched, rolled, and rubbed between hands. After fibers thus partly softened, hide draped over horizontal bar set into forks of 2 upright posts 3 ft. high, 3 ft. apart; hide pulled back and forth over bar, man often working with hide thus at intermittent intervals for 2-3 days. Tanned hides (takta·šat) not smoked; sometimes whitened; negative 15-6273 shows Tübatulabal man softening clay-whitened deerskin.

Skins to be tanned with hair on, as wildcat skins used for wrapping up infants, were scraped clean on skin side, skin wet, and deer brains, which had been soaked in small amount water, rubbed into hide with hands. Hide then allowed to dry and pulled, rubbed between hands until soft. Bear hides also tanned with hair left on, brains being worked in with scraper.

237 Fresh deer brains could be used for tanning hide, but usually dried brains used, prepared as follows. Deer skull cracked open with rock, brains scooped out, smeared over both sides cir-

237 cular mat (či·gon) 3 in. wide, 1 1/2 in. thick, made of shredded native twine. Mat hung up on tree to dry; then stored away; when used, mat soaked in warm water and broken into several pieces; brains sank to bottom of container, shredded twine skimmed off surface of water with hands and thrown away. Brains then stirred into water and hide put in.

281 415 Sacks, purses, flat hides.- Sacks (ma·šat) made from untanned deer, antelope, coyote, wildcat skins. Skin removed whole from carcass by cutting it around neck, lower legs, and anus and peeling it off; skin then turned hair side out, except those used for quivers, and anal and leg openings sewn up with native string, using bone awl. Skin then set up on end, loose dirt poured in through neck hole and skin left to dry for 2-3 days. When dry, dirt poured out and sack ready to use for carrying acorns, piñons, arrows, or for storing food, shell money, etc.

[177] Purse (mu·gulat) of weaselskin used in post-white times to carry silver dollars. Specimen 1-19804, weaselskin purse, labeled "used for Indian money," consists of entire skin which is dehaired, tanned, turned inside out, left open at mouth; SM probably correct in denying such purses [436] used for shell money as latter was kept strung, coiled and any large amount would be too bulky for such small container.

● [171] Bear hides tanned with hair left on; scraped, brains rubbed in as among Surprise Valley Paiute (Kelly, 119). Salt grass, cane laid on these tanned hides and flayed; occasionally, hides used as bed coverings.

RECEPTACLES

415 Besides using basketry and rawhide containers, Tübatulabal also made pottery and horn receptacles and apparently used imported steatite ware to slight extent.

323 [462] Pottery.- Despite fact that "all the women used to make pots" (ES, FP); no informant could manufacture one for me, nor are any pots (ka·gul) now extant except one small mended specimen (fig. 8c), provenience of which is doubtful. However, FP had seen her grandmother make pots and SM remembered process sufficiently well to describe it briefly, as follows.

[317] Red clay (yahawa·l), obtainable from several deposits on floor of South Fork valley, used for pots; ES pointed out one deposit of clay on knoll below village site no. 9 (fig. 11) in field belonging to Charles E. Andress, 1/4 mile E of road leading to village site; another deposit near village site no. 8. Clay dug, finely pounded in pit mortar and mixed with water into dough; no binding material added (FP, SM). Lump of clay flattened into disk with hand, set down on board or, formerly, basketry sifter; roll of clay about

T 323 [171] as thick as thumb laid around upturned edge of circular base and one roll after another used to build up side of pot as among Yokuts (Gayton, 1929, 242). Inside and outside of pot smoothed with fingers only (SM, FP); twig, chip, or acorn husk "might have been used a little" (FP), but small polishing stone such as Yokuts employed (ibid., 243) not used, nor were fingers dipped in syrupy substance while smoothing pot as among Owens Valley Paiute (Steward, 1933, 267). After pot shaped and smoothed it was sun-dried and then put on "a blazing fire made from any kind of wood"; pot allowed to get "red hot" (FP); firing caused clay to turn gray-black (SM, FP). T [171] After cooling, pot ready for use; coating acorn mush (Gayton, 1929, 245) not given it. SM had seen Tübatulabal pots shaped like middle and right-hand specimen in upper row of Yokuts pots pictured in Kroeber's Handbook, 530, pl. 51, but had never seen incised lines, such as those on Yokuts specimen, on any Tübatulabal pottery.

T 415 Pots were used for boiling meat, small game, whole piñons and buckeye nuts, tobacco stalks; T [276] FP said that occasionally acorn mush cooked in them although it was usually stone boiled. Pottery pipes not made (SM), cane cigarette pipes T [532] being used for smoking; FC had seen old Koso woman make clay pipes for her own use. Little girls sometimes made crude unbaked (SM) clay [857] dolls (a·na·wišti·l) from red clay; SM thought such to have been aboriginal; children also occasionally made animal figures of clay, baked them (Voegelin, 1935 b, 227). Although pottery generally made by women, MM as boy had tried to make pots, but his cracked when heated, whereas "old-time pots were so hard they wouldn't break if you threw them down or hit them with a rock" T (MM). 171 Contiguous distribution of this type of pottery limited to a few Calif. and Great Basin tribes (Gayton, 1929, 248, fig. 3; Steward, 1933, 269).

T 321 Horn objects.- Mt. sheep horn used as container for pounded tobacco and lime (see section on Tobacco); spoons (ta·mil) "shaped like a kitchen spoon" were made from antelope horn, using base of horn for bowl; "men and women used spoons for eating acorn mush" (SM); PN denied use of spoons.

T 324 Steatite objects.- Stone olla, 3 ft. high, "carved out of rock," was mentioned by FM, who said his father had found it among boulders on C hill behind Jesus ranch in South Fork valley 40 T yrs. ago. FM could give no further details. 756 Small steatite bowls and tubular pipes with 177 bird-bone mouthpieces (pl. 1a) used as part of rain doctor's outfit. Outfit pictured, now in [321] possession of SM, inherited by him from his stepfather, Francisco Sasterray, Tejon Indian (probably Chumash); this makes these objects foreign importations among Tübatulabal; however SM said

756 177 latter possessed similar objects, used for rain making in early days, but that such "were buried with owner when he died."

MUSICAL INSTRUMENTS

534 Musical instruments few, simple; 3 varieties rattles used; drum (tamburin, Sp.) lacking; SM had made one at Tejon and brought it home, but "Tübatulabal didn't use them." Musical rasp also lacking.

Rattles.- Split-stick rattle (ka·ba·ba·yništ) made from peeled stalk dry elderberry (ku·hupïl), Sambucus velutina D. & H., foothill floral area, split down center; split ends both same length; total length of specimen made by SM 18 in., length of split section 14 in., handle 4 in. Made by men; used at dances to accompany dance songs (SM).

●[171] Cocoon rattle (pa·ʒo·alginišt) similar to Maidu rattle (Kroeber, Handbook, 420, fig. 37b); consisted of slender stick about 12 in. long with 4-6 cocoons (či·ko·lolondiŋ hani·n, butterfly's house) tied on upper end. Slit made in cocoon at one end, 2-3 small pieces rock put in, slit end tied with twine and cocoon attached with twine to stick. Old men used cocoon rattles to accompany songs they sang softly to themselves at night after going to bed (SM).

Dewclaw rattle (ša·lišt) consisted of 8 dewclaws (ša·lu·n) threaded through short buckskin thongs knotted at one end and tied to stick about 5 in. long. When rattle shaken, end of stick to which dewclaws attached held downward. This rattle used by rain doctor.

Whistle.- Quill whistle made "from a big feather cut like a [cane] pipe," mentioned by FP; her father had used such (see p. 73). PN agreed quill whistle used, but neither informant could remember name for this whistle or give further details; SM knew nothing about it.

Boys and girls made whistles from short hollow sections of Eriogonum nudum Dougl., foothill floral area (šiko·nišpu·l).

Flute.- Flute (lu·lu'išt) made of peeled elderberry stalk from which pith had been poked out with stick; about 26 in. long; had 6 holes, first of which was 8 in. below mouth end, other 5 spaced at 1 1/2-in. intervals beyond it toward distal end; end blown. Man played flute to himself, for own amusement during daytime; did not take it into sweat house to play; young men sometimes played it when courting (SM).

Musical bow.- Musical bow (pi·bi·wi·ništ, also name for jew's-harp) used occasionally, "not very much"; man plucked bowstring of hunting bow with index finger as he held one end of bow in mouth (SM).

[p. 35(6)]

276 small mortar, and powdery substance stuffed into
887 tubular pipe (wo·ša·giništ) made from 4- to 10-in. length of hollow cane (paha·bul), Phragmites communis Trin. Old men smoked once or twice daily while in sweat house or after morning, evening meals, "not all the time, like people do now" (MM). Smoker held pipe horizontally; took long slow puff from it, inhaling deeply, then removed pipe from mouth and closed lips; exhaled smoke slowly through nostrils. "The smoke went up from the smoker's lungs right to the top of his head, because that smoke was so strong" (MM). From 2-3 such long puffs, no more, taken at one smoking; tobacco so strong it soon caused smoker to tremble violently as though intoxicated. After indulging thus, smoker extinguished pipe by rubbing it in palm of hand, then set it aside for future use. When tobacco in
[323] pipe consumed, cane tossed away. Pottery pipe not used; steatite pipes used by rain makers.

●171 Distributional discussion.- In general discussions of the use of tobacco in North America
276 the trait of chewing tobacco with lime is mentioned as having a continuous distribution from the North Pacific Coast tribes S through the greater part of Calif. (Linton, 2; Wissler, 26, fig. 6; Sayce, 200; West, 99-100). Dixon, how-

Tribe	Tobacco species	Native names
C.,S. Miwok	N. bigelovii	ka´sü; kaku; hū´tla
W. Mono		pamu; cokx
O. V. Paiute	N. attenuata	pämüpi; pähmü; sägö
Koso		sohon, shogun
Tübatulabal	N. bigelovii; N. attenuata	šo'ogonht
Kawaiisu	N. attenuata; N. trigonophylla	soóda; koópi
Yokuts		sɔhɔw, personal name of plant; sɔ́.Gɔn, tobacco, tobacco plant; ba'um, tobacco smoke, cigarette
Costanoan		
Salinan		
Chumash	N. species	
Kitanemuk	N. species	tsiwut
Alliklik	N. species	
Gabrielino	N. species	shuki
Cahuilla	N. attenuata	pivat

171
276

ever, has shown that it was not tobacco, but some unknown masticatory, which was chewed with lime by the Tlingit and Haida (Dixon, 146-150). For Washington, Oregon, and n. Calif. tribes I have found no references to the chewing of tobacco, or any other plant substance, with lime; for the Quinault (Olson), Klamath (Spier, 1930, 87), Karok (Harrington, 10), and Wishram (Spier and Sapir, 269) the trait is denied. It is only when the Miwok of central Calif. are reached that chewing of tobacco with lime is reported; from the Miwok S the trait has a continuous distribution among a compact group of c. and s. Calif. tribes, as is shown in the tabulation below.

Tobacco chewing is not mentioned for any other S Calif. tribes; among Kamia (Gifford, 1931, 25; 1932 a, 25), Southeastern Yavapai (Gifford, 1932 a, 213), Akwa'ala (Gifford and Lowie, 342) absence of trait noted.

In regard to the use of tobacco and lime outside of California, MacLeod has pointed out the interesting fact that green leaves mixed with lime and tobacco mixed with the ashes of burned insects were used in Valley of Mexico; he also refers to a mention of the chewing of tobacco in the origin myth of the Chitimacha, and to the swallowing of a tobacco composition in the form of a pill, among the Natchez (MacLeod, 418-419).

Uses	Source
Eaten with lime by men, women, to induce vomiting.	Barrett and Gifford, 193, 195
Smoked; eaten with lime (?).	Gifford, 1932 b, 23; Kroeber, 1907, 77, 94; Tüb. informant (SM)
Smoked by men, doctors; chewed with lime by women only.	Steward, 1933, 319-320
Chewed (?).	Kroeber, Handbook, 627
Chewed with lime by men, women; emetic; smoked by men, doctors.	
Chewed with lime by men, women; emetic; smoked.	McCown, MS.
Chewed with lime by men, women; emetic; smoked by doctors.	Newman; Kroeber, Handbook, 516, 538, 617
Chewed with lime; smoked.	Kroeber, Handbook, 469, 826
Chewed with lime; emetic; smoked	Kroeber, Handbook, 548; J. A. Mason, 165
Chewed with lime.	Garcés, 277
Chewed with lime; emetic.	Kroeber, Handbook, 613, 628
Chewed (?).	Kroeber, Handbook, 538
Eaten with lime, medicinally.	Kroeber, Handbook, 627, 628
Chewed; smoked.	Barrows, 74

[p. 38(b)]

e. edge of Hot Springs valley. Elev. 2500 ft.; est. pop. 40; unoccupied, 1932. SE quarter, sec. 31, T26S, R33E.

17. cuhka·yl, Palagewan site, at hot springs in foothills, valley of unaugmented Kern. Elev. 2600 ft.; est. pop. 60; unoccupied, 1932. NW quarter, sec. 26, T25S, R33E.

18. ho·lit, Palagewan site near mouth of Bull Run creek. Elev. 2700 ft.; est. pop. 30; unoccupied, 1932. SW quarter, sec. 4, T25S, R33E.

Kroeber (Handbook, 607) locates villages at confluence of unaugmented Kern and South Fork of Kern r., and at Kernville; SM said there were no village sites at either of these points.

Hamlet sites might be inhabited regularly throughout winter months, for several years by same or different families. Families often shifted residence, however, from one hamlet to another for same reasons Northfork Mono moved about (Gifford, 1932 b, 17). Hamlets consisted of 2-6 households; population of single settlement not necessarily all related, but many times were; occupants of each household related. Hamlet no. 5 (fig. 11), where SM lived as boy, consisted of 2 related households with personnel as below:

House I

Tübat.♂ (1)	Willy Miranda (3)	Steban Miranda (5)
=Tübat.♀ (2)	=Tübat.♀ (4)	Pedro Miranda (6)

House II

Tübat.♂ (7), b of (4)	♀ (9)	Tejon (Chumash)♂ (13)
=Tübat.♀ (8)	♂ (10)	plus =Tübat.♀ (14), ss of (8)
	♀ (11)	
	♂ (12)	

House III

Empty

In house I, (3) houseowner (hani·ganan); in house II, (13) builder and houseowner for 2 yrs., until he and his wife moved to Tejon, when (7) became houseowner. House III unowned; "perhaps a storage house" (SM). No sweat house at this hamlet; occupants used sweat house at hamlet no. 4 (fig. 11). Houses 50-100 ft. apart. Occupants of 2 houses did not necessarily act as unit when hunting, fishing, seed gathering, but when South Fork of Kern r. flooded site, both households removed to vicinity of hamlet no. 9 and lived there until 1863. Two other hamlets each consisted of 3 houses.

Tübatulabal family biological, bilateral unnamed group, neither markedly paternal nor ma-

CYCLE OF LIFE

843 Birth.- Woman knew she was pregnant when menstrual periods stopped; during her pregnancy she "worked hard, climbed mts.; if she stayed in the house she'd get fat and the baby wouldn't [262] move" (FP). During last month of pregnancy woman ate no meat, very little salt; if she ate meat then, her husband would fail to see deer when hunting (SM). Some husbands did not kill any animal or eat meat when wife pregnant; others did so. One man "killed a fox by smashing its head, while his wife was pregnant; the baby was [845] born without any eyes or nose. Another time that same man killed a king snake when his wife was carrying a baby; the baby was born with a king-snake mark across its chest" (FP). Husband could have intercourse with wife during period of pregnancy. Sudden fright during pregnancy caused miscarriages; FP, LT said some babies born at 8th month, but expressed surprise when 7-months babies mentioned.

844 Older woman, usually a relative, attended woman in labor; husband often assisted, sometimes attended wife if no woman relative available. Husband or attendant dug shallow trench about 3 ft. long, either inside or outside living house, depending on weather; fire built in bottom of trench, slabs of stone laid on top of fire, then layers of earth, tule mats on top of stones. Woman in labor lay on top of this trench (to-nist); during childbirth knelt, grasping [171] vertical stick; attendant pushed baby down onto mat on ground as among Surprise Valley Paiute (Kelly, 158). Woman stuffed her hair in her mouth to prevent vomiting as baby emerged. To prevent breech presentation, if this expected, woman held suspended head downward; baby righted itself inside womb and would be born head first (FP). In [789] protracted labor person possessing amulet containing supernatural power might be called on to rub amulet over parturient's body (see Autobiography of FP).

Mother of baby pulled out afterbirth, cut cord and tied it about 3 in. from navel, with native twine; cord usually dropped off after 3 days; was saved by mother and kept wrapped in buckskin. Newborn baby washed in plain warm water by attendant and wrapped in soft deerskin, wildcatskin blanket. Maternal grandmother of infant buried afterbirth outside house.

846 After birth mother and infant lay on mat over [853] hot trench for 6 days. First 2 days baby fed thin gruel made of water, acorn or piñon meal, from mother's fingers; mother milked out colostrum for ca. 2 days, baby nursed on third day. If mother had no milk she rubbed her breasts with soaproot brush dipped in warm water to induce flow. For one month she drank only warm water, [262] "else her blood would get thick and she'd die" [illegible]; ate no meat, salt or grease as these foods would get into her milk and make baby sick (FP); if she ate meat husband would not be able to see deer (SM).

[p. 45(a)]

538 2 times (Voegelin, 1935 b, 223). Bath taken to make listeners "strong; keep them healthy," so wood would not prick them (ibid.); if listener did not want to take early morning plunge he or she gave story teller something to eat, such as few piñons, acorns, seeds. Persons in house who did not wish to incur obligations that listening to stories involved lay down, covered head with robe so they could not hear stories, and slept.

538 773 Myths could only be told in wintertime, at night; if told in summer snakes bit listeners and narrator. Tales regarded as true stories, such as Orpheus story which narrates adventures of mortal man seeking to recover his dead wife, SM would tell in summer, but it was taboo to tell Coyote myths, etc., then. A very few old persons, of whom SM is one, still narrate myths to small groups on winter nights.

524 String figures.- String figures (a·wil) made from native twine, in winter, either during day or night, for pleasure only, by men and women; "everybody knew how to make them" (FP, SM). Old people urged young people to make the figures; "if old person had a son or daughter who asked him to make some string figures, the old man would say, 'This is Coyote or Bear,' and the young people would learn how to make it by watching that old person. They seemed to make pictures with those figures. Or if a person knew a lot of figures, people would go to his house at night in winter to watch him make them; the figures might suggest stories to the maker, too" (SM). [538] Figures did not, however, accompany myths as means of illustration. [552] Some names of string figures were: Mouse, Tugayayal (bird), Bluejay jumping (SM), Bear in house, Tugayayal flying, Coyote running, rabbit net (FP). All animals mentioned above occur as characters in myths.

Same taboo extended to making string figures in summer that held for telling myths in summer (above).

WAR

721 Although Tübatulabal were probably, as Kroeber points out (Handbook, 605-606), not markedly aggressive group, nevertheless they engaged in hostilities with neighboring tribes to greater [171] extent than did, for example, their Shoshonean neighbors, Owens Valley Paiute (Steward, 1933, 306). Various central Yokuts groups made raids into Tübatulabal territory, which were followed by reprisals on part of Tübatulabal (SM, FP, FM); "the Kawaiisu used to go and fight with the Tejon people (s. Yokuts), but the Tübatulabal never did" (SM). Although SM, FP said that to [648] their knowledge relations with Koso and Kawaiisu had always been friendly, Tübatulabal even engaging Koso as allies during war with Yokuts (below), FM said he had been told by "Little Bill" Chico that Tübatulabal "often fought with the Kawaiisu,

622 Chief received messengers sent from other tribes, arranged for allies in event of war, as-
[702] sembled war parties, selected captain to head such, "made the war dance (of incitement) at his
[728] place" (FP), represented his people at peace parleys with chiefs of other tribes. Chief him-
[754 self did not go to war. It was chief's duty to admonish evil shamans when they were causing sick-
627] ness and to order such killed if his admonitions went unheeded; this extended to malefactors within chief's immediate family; no collusion between chiefs and evil shamans, such as occurred among
● [171] Western Mono and Yokuts (Gayton, 1930, 398) remembered by any of my informants.

622 Chief settled fights arising from jealousy over women, or over possession of game; he "would ask people why they fought and tell them not to
578 do it any more. If 2 persons were always fighting, he would tell one to move out of the settlement" (FP).

622 A chief headed Tübatulabal when they joined the Yokuts for antelope drives, but chiefs did not direct people where or when to go for piñons, fish, acorns.

Chiefs attended burnings, dances; delivered orations at such; lectured youths, telling them not to fight and, later, not to drink too much whiskey; often upbraided stingy people for not bearing just share in expenses of fiestas.

622 Chief did not play hand game (SM); was likely
576 to tell myths in wintertime, but this not his
[525] exclusive privilege. Chiefly etiquette did not permit chief to visit socially among his people; "he would send somebody over to a person's house
[574] if he wanted to see that person" (SM). One Tübatulabal chief sometimes visited "around Bishop (Owens Valley Paiute); this was all right because he had relations there" (SM). SM, Tübatulabal chief in 1932, visited sick to administer herb medicines; also visited Catholic priest and some of his relations and went on trading trip with his son, MM, to Northfork Mono in 1932, but never made social visits among his people, and those persons other than relatives who came to see him usually came on business.

622 Women chiefs as functioning officials, reported
462 for Tübatulabal (Kroeber, Handbook, 608), denied by SM, PN; SM, 1931, said, "the wife of a deceased chief was called timiwal until she ate meat; then the new chief was chosen. A daughter might be named, but usually refused the office." In 1932 he denied latter part of his statement. FP said Mrs. Petra Miranda should have automatically become chief for Palagewan group after former chief, Mrs. Miranda's mother's brother, died, "only she has no people to be chief for now." SM denied this but said chieftaincy might have passed to deceased chief's sister's son; FM and PN, Mrs. Miranda's son and parallel cousin, respectively, said women never chiefs. Mythological records contain no occurrences of women functioning as chiefs.

622 If people dissatisfied with chief, clown instrumental in having new leader appointed (see below).

576 used now. Farewell salutation is "I'm going now; goodbye." Greeting between strangers, persons who had not seen each other for some time is "Hello, where do you come from?" No handshaking. Tübatulabal "liked to see strangers" (SM); visitors given gifts of piñons, chia, "just the same as now, we give piñons to everyone who comes up to the piñon camps" (ES); young girls enjoined to be hospitable (ante). In times of scarcity, however, food was bought; person who had stores of it "wasn't expected to give it away" (SM).

Mothers kissed children occasionally; adults did not kiss (SM).

578 Jealousy on part of man, woman, sometimes led to separations (ante; Voegelin, 1935 b, 235); jealousy over man might start 2 women fighting, but men "didn't fight that way over a woman, generally" (SM).

685 SM had never heard of any member of community
158 who deliberately set fire to others' property; insane persons (tohoyi-wut) "just had to be
[753] watched; nothing was done about them. One woman went crazy a few yrs. ago, because a witch put something in her ear and made her that way; she wouldn't go to a doctor and so she died in the Stockton asylum after she was there a year" (SM).

522 At fiestas during dances at night, if woman
[624] slipped away to keep rendezvous, when she returned
[837] dance leader would grasp her by arm, dust her off with bunch of feathers, much to everyone's amusement, woman's confusion (SM). Young mature girls, if they surprised boy of about 12 in swimming would surround him, chaff him; boy would beg to be allowed to leave and often run away crying (MM). An example of what is considered humorous occurs in anecdote of man in deer-head decoy who was mistaken for deer by mt. lion and attacked by animal; man's brother, standing off at safe distance, saw this occur, but instead of going to hunter's aid he remained where he was and "just laughed and laughed" as lion leaped on hunter.

181 Garcés in 1775 was hospitably received by (Palagewan?) group on unaugmented Kern and characterized the people as "affable and affectionate" (Garcés, 281). When first approached, Tübatulabal show marked reserve which can easily be mistaken for indifference, or even unfriendliness; in time,
[17] however, this reserve disappears, as Steward notes of Owens Valley Paiute (Steward, 1935, 238), and informants prove friendly, interested, generous, and honest. Men and women are generally energetic in their daily life, and attentive to detail in work. Women often voice expressions of sympathy for the young, weak, or suffering; when SM's pet dog was shot SM "cried and cried" for several
[674] days. I heard of only one theft among Tübatulabal during my work with them. The older members of the group, especially, have a high reputation for dependability and trustworthiness among their white neighbors.

516 Postures.- Men sat (a) right knee bent, weight resting on right heel; left foot flat on ground,

516 knee up; this commonest sitting position, referred to as mi·išit. (b) When sitting leaning against tree or other back rest, legs extended straight forward, feet crossed. (c) Sometimes sat Turk fashion, but "not much" (SM).

Women sat (a) right knee bent, right leg and inner side of foot extended backward on ground, with weight of body resting on right heel; left foot flat on ground, knee up. (b) Both legs bent under body, weight of body resting on ground, feet slightly protruding from under left thigh. (c) When sitting against tree, legs extended straight forward, feet crossed. (d) Turk fashion often used when working with materials in lap. (e) When using large portable mortars, women sat with legs extended straight out in front on either side of mortar.

516 482 887 Men, women used cane (nahat), 4-5 ft. long, made of willow or hard wood, "when packing something heavy"; older people used it as aid in walking over rough country; cane kept in house as regular article of use.

201 Direction indicated by turning head, tossing it slightly and pouting lips noticeably; FP did this habitually, SM less markedly. Amused semi-embarrassment or surprise indicated as among [171] Mohave (Kroeber, Handbook, 729); MM, a man, used this gesture frequently, ES, a woman, sometimes; [773] myth refers to its use by Coyote (Voegelin, 1935 b, 199). Informants gestured frequently while [537] narrating myths, etc.; also to some degree in ordinary conversation.

AESTHETICS AND KNOWLEDGE

517 Aesthetics.- Although art forms relatively undeveloped save in province of basketry, TÜbatulabal were not lacking in sense of aesthetic appreciation. In describing water bottles, FP, LT commented on how "pretty" container looked with red earth smeared over outside. ES thought raccoons had "pretty fur" and wondered immediately afterward why "the old timers never used coonskins." FP consented to be tattooed because it would look pretty and her autobiography contains several [823] references to prettiness of certain objects. In commenting on landscape, however, the economic possibilities seemed of paramount importance; MM's reaction to towering wall of Sierras between Independence and Bishop, in Owens Valley Paiute region, was that the mts. were "too bare"; FP's comment about desert to E was that "one couldn't get anything to eat there."

Sketches of design elements for baskets brought forth only one comment from ES, that certain design was "hard to make." However, in another department of basketry aesthetic appreciation was manifested. Although FP stated that piñon jars (see section on Basketry) "were not given away much; they were just made to put piñons inside," and ES agreed with FP about utilitarian purposes these jars were put to, it was my impression that

1/v [The quick placing of the hand over the mouth.-- Analyst]
[p. 57(b)]

532 figures at pa·la·ku·č (fig. 14), at 3 South Fork sites all figures painted in red; at pa·la·ku·č majority of figures in red, but a few in red and black and one, of snake (?), in black, outlined in yellow.

Little or no plastic representation, except for crude dolls children made; no realistic carving. Tule image of deceased person carried at mourning ceremony (see Rituals).

[778]

531 Symbolism apparently entirely lacking; informants could give no explanations for feather wand, woodpecker bands, other paraphernalia carried at mourning ceremonies (see Rituals); one item common among Great Basin, California tribes, that of decorating baby cradles according to sex of child (Kelly, 134; Steward, 1933, 273; Kroeber, Handbook, 536) consistently denied among Tübatulabal. A few basket patterns had descriptive names (ante).

[171]

802 Knowledge.- Decimal system used; count has been recorded (Voegelin, 1935 a, 178). Large numbers of rabbits, fish which were to be divided between several persons had to be portioned out. Sticks, marks in sand not used in division.

805 Year (šuwa·l, world) divided into u·dalami·k, fall, "when the sun is shorter" (SM); tomo·waš, winter; taha·waš, summer, "when the sun goes higher" (SM). Doubtful if solstices observed. Year divided into lunations, months starting on each crescent moon; some lunations named descriptively: ču·u·ga·nan čuwi·la·t, icicles hanging down (January?), which was followed by hu·litap, everything green; ku·la·^{wit}, when grass is ready to bloom; ibi·n wi·^{yal}, time when flowers bloom. Rest of lunations unnamed or informants had forgotten their names; no month names taken from names for fingers.

821 Stars (šu·l) not used at night for guidance; not counted above 3 (Voegelin, 1935 a, 179) because "a long time ago the Indians counted all the stars and they died; that's why they're afraid to count them now" (SM). Milky Way (owi·dinpo'in, dove's fire) caused by doves who "made a fire and the smoke went white" (SM); this part of myth which SM would not tell in summertime. "The Mexicans say the Milky Way is piñole" (SM). Pleiades (a·na·wišt) are 7 women who left husbands and went up in sky. Morning star (yeu'wišn) seemed to have no myth connected with it. SM had heard of star shower, but had no comments to make.

773 Crescent moon lying on back presages dry weather; upright it is full of water (SM). Rainbow (tanibo·'in) has myth attached to it.

At eclipse of sun (u·muktal) people put powdered tobacco on palm of hand and blew it toward sun, shouting 3 times, "Sun, don't die; come alive," or similar entreaties. If sun should ever die, large snake (wai·i·ni·š) living up in sky would fall to earth (SM).

823 Earth dome-shaped, surrounded by water. Earthquakes (šuwa·l šidu·gat, world shaking) caused by woman (p. 60).

773 Directional terms obsolescent; wi·naŋ, N, pa·lami·k, W, talami·k, E; possibly others.

"people didn't know about the man who
771 lived above the sun until the white men told them
776 about God" (SM). Concept of dying benefactor was,
[771] however, part of religious belief and was, more-
over, related to jimsonweed complex; "a long time
773 ago Jimsonweed was a man; his name was mo·mo·ht.
He said he was going to turn into a plant and if
any man was sick or broke he should dig his roots
[754] and drink him; then Jimsonweed would give him
something" (SM). Mention has already been made of
belief that witches are not powerful enough to
destroy efficacy of this plant. But aside from
addressing formula to jimsonweed when digging
roots, there seems never to have been any form
of worship addressed to benefactor. Neither SM,
FP had heard of Chungichnich.

794 A few other details of religious belief, how-
771 ever, also seem to relate clearly to so-called
jimsonweed cult and 6-god system known among
[771] tribes to W and S (Kroeber, Handbook, 623). SM
776 said that woman, named mane·sa, lived at aykeček,
[823] "across the ocean" with 5 brothers who took care
of her; "whenever this woman turned over in her
sleep, the earth quaked." When FP's father ad-
ministered jimsonweed to FP "he blew on a whistle,
so that 2 old men and an old woman who lived on
the other side of the world could hear him" (see
Autobiography of FP). Informants could not remem-
ber names of any of above-mentioned siblings,
[757 save woman's. Among Tübatulabal jimsonweed ritual
789] and pantheon referred to above seem to have
existed in attentuated form, with emphasis, so
far as use of jimsonweed goes, on its medicinal
properties and its use in obtaining supernatural
power.

773 When questioned, SM said somewhat dubiously
774 that tobacco had also once been a man, and had
also spoken to the people, but that no formula
was ever addressed to him. In Yokuts mythology,
[771] according to Dr. Stanley Newman, tobacco personi-
fied, and has personal name.

773 Coyote culture hero and trickster; as culture
hero he causes earth to be remade after flood
(Voegelin, 1935 b, 209), obtains water and fire
for people, regulates division of labor (ante),
causes death to come into world (Voegelin, ibid).
He opposes Eagle, who is also chief (ibid., 207)
during mythical age. As trickster, Coyote plays
usual rôle of liar, cheat, dupe (ibid., 199, 209,
211). Informants, volunteering comments on Coyote's
character, mentioned how puzzling they found his
dual rôle; "Coyote--he's bad, mean; but he's good,
smart, too; I don't know how that is" (MM).

774 Spirits.- Animals could "hear everything that
776 was said"; this belief extended to all flora as
well, but differences of opinion expressed on
whether it applied to inanimate objects such as
rocks; SM said it did not, MM (ibid.) asserted
rocks "tell (Bear) everything." However, rocks,
streams seem not so much supernatural in them-
selves, but to serve as dwelling places for super-
natural beings; entire region in which Tübatulabal
lived peopled with many varieties of such beings,

774 in rocks on Goat ranch, SW of Weldon near village
776 site no. 19 (fig. 11); "if people go in that cave, he might kill them" (FP). A piñon tree which always has ripe cones on it grows beside a lake on top of Caliente mts.; a basket floats on top of the lake all the time; "the Indians are afraid of this; maybe mĭgĭtih (Blood-Clot Boy; Voegelin, 1935 b, 211) is in that basket" (SM).

774 Soul, ghost.- Soul (šu·num; also name for
775 heart) resides in head; leaves body temporarily through ears when person sleeps at night; "when you dream it is your soul that goes out and does the things you dream" (SM). Capture of soul by
[828] evil shaman causes insanity. When person dies, his breath (i·kin), which stays in heart during life, goes out, together with soul, and latter becomes breath, but looks like human being, and is referred to as a "devil" or ghost (abawinal). Ghosts travel about by day in dust spouts (popu··lu·it); these latter, unless they strike person, considered harmless, arouse no fear. People also see or hear ghosts at night; such experiences usually frighten person, but sickness does not result, unless ghost has been expressly sent by witch to cause illness; same applies to seeing dead in dreams. Sometimes ghost appears to person in jimsonweed trance, gives person "life" and tells him how to obtain protective amulet; such supernatural guardians "are best of all to have" (SM).

Although FM recalled that one evil shaman had said that when he died he was going to turn into deer, another that he would turn into bear after death, thus showing that transmigration beliefs existed among Tübatulabal, more general belief is that dead stay in land to E, where they live much as they do on earth; on way there they must pass over mt., where large crow picks out their eyes as they pass by (Voegelin, 1935 b, 203).

773 Mythology.- Although summer taboo prevented SM from telling several interesting myths with definitely localized settings, to which he made only passing reference, a fairly representative body of mythology was obtained which, as Dr. Gay-
[171] ton has recently shown (Gayton, 1935, 588, 595), is predominantly of a Great Basin character. Animal tales are all-important; cosmographical and cosmological material relatively simple and contains accounts of flood, earth diving, impounded game, death controversy, transformation of first people into animals at end of mythical age, and 2 motives as yet unreported among neighboring tribes, one of Eagle hoarding water and another of division of labor (p. 53). Fairly large number of myths relate to adventures of first people; there is also a long Coyote-trickster cycle, a few hero myths, and a short collection of "true" tales, together with some anecdotal and historical material in collection made by Dr. C. F. Voegelin and myself, which supplements Dr. Voegelin's published textual material (Voegelin, 1935 b).

Chumash NS7 Yokuts NS29

C walked; he went fast; the bear could run as far
754 as that rock (200 yds.), turn around, and be
789 back, very quickly. The driver stood up, then sat
791 down when he pulled the reins; he growled. He started from here at sundown and got to Tejon in 2 hrs. (50 mi. away in airline); whenever they wanted to go some place they'd go over and get this bearskin; it was kept hung up. One old man took his grandson, who was about 17 yrs. old, over to the cave where the bearskin was; he wanted to teach him how to drive it. The old man got inside the bear. and was telling the boy how to handle the reins, and the boy was watching him. The old man told him, 'When you want to start it, you step on this; when you want to turn, you pull the reins.' The boy went inside the bear and sat down; I guess he stepped on it too hard, and that bear jumped quickly and ran away. He ran into a steep canyon and jumped into a big oak tree; he got stuck in it, hanging there. The boy got off quickly; he was frightened. They always came up here for that ayi·p, that white stuff like baking powder, to blow on the bear. They made lots of these machines; 10 of them."

T
754 Rattlesnake shamans.- Rattlesnake sometimes
776 obtained as pet by vision seekers; persons who
791 had this pet could play with rattlesnake; "at a fiesta they danced and held snakes in their hands; they got a song from rattlesnake, and he wouldn't bite them after that" (SM). "One man had rattlesnake as pet; when anyone was bitten he was called and sucked out the poison. When that man was dying the people found his pet outside the door; they threw the snake away, but he returned" (MM).

T
754 SM thought rattlesnake good pet to obtain, but
825 denied persons with this pet could cure snake
177 bites; FP said rattlesnake "a friend to witches";
776 one of animals witch could send out to accomplish
791 evil. All informants agreed no rattlesnake step-
[171] ping ceremony held, as among Yokuts (Kroeber, Handbook, 504); SM's brother had seen Yokuts shamans go to rattlesnake holes, bring back snakes, handle them publicly; Tübatulabal did not do this. Anecdotes of persons who had rattlesnake for pet mainly relate to Yokuts who were living among Tübatulabal (see Autobiography of FP); PN, who had rattlesnake as pet, married to Yokuts man; FP, whose intertribal affiliations were with Koso toward E, held rattlesnake in low esteem (above).

T
Y
786 Exhibitions, competitions.- At mourning cere-
789 mony, or little fiesta for face washing (below),
791 shamans, or persons with power from vision (takiniganan) held shooting contests (umu·lomot); "they played that way" (SM). Contest between 3 Yokuts, one Palagewan shaman, held on SM's rancheria, described as follows: "At about 9 o'clock in the morning, 3 Tule River reservation Indians and Bill Viejo Chico from Bull Run, with 4 men (o·wi·ganan) to help them paint, went out in the bushes. The contestants put on their feather skirts and headdresses and had their faces painted

T 788 facewashing, whereas FP, FM mentioned lower sums, $5, $6 or "whatever one had."

765 572 Money received in ta·gin relationship spent "to buy meat, things like that " in interim before death in recipient's family necessitated repayment of equal sum. After death in family man "would go hunting, sell the meat, and get some money; his relations would help him out with gifts of money too, so he could get his face washed and eat meat" (SM). If person had 2 deaths in family, with only short interval elapsing between them, he had to observe 2 separate meat taboos, have face washed twice. Person could be ta·gin to as many other persons as he cared to be; "often this happened; the chief was often ta·gin for a lot of people, but not for anybody in his hamlet, and people didn't have to go to him" (SM). Child of 4-5 yrs. would have to have face washed if one of his brother's or sister's adult children died; would pay as much as adult for face washing. If 2 or 3 persons came under meat taboo following death of relative, they all had faces washed at same time, contributing equally to amount paid facewasher, with whom all entered into ta·gin relationship. If one's ta·gin died before one had been able to collect reciprocal payment from him, offspring, or other relatives of deceased not obliged to carry on any ta·gin relationships deceased had entered into.

T 587 After having face washed widow let her hair grow, could remarry.

T 572 754 [789] Failure to observe meat taboo implied disrespect to dead, as it meant one was eating corpse. Breach of taboo might be avenged by witchcraft on part of relative of deceased; woman cited (p. 80) who after husband died ate meat without having face washed; as consequence she was bewitched, killed by her mother-in-law. Witchcraft, it might be noted, also entered into other phases of this taboo; if person's ta·gin was witch, latter might kill person's children, "to get her money back." Normally, however, persons in ta·gin relationship "treated each other like brothers," did not borrow money from each other; one basis of selection of ta·gin was that person chosen have "lots of children," because the person paying for face washing would be interested in question regarding "when he was going to get his money back" (SM).

T Y ● 171 Owens Valley Paiute and Yokuts of Tule River reservation said by informants to have this same ceremony; Kawaiisu, Koso lack it (FP). Owens Valley Paiute head washing, similar to Tübatulabal face washing, described (Steward, 1933, 298); several features of Yokuts meat taboo correspond to Tübatulabal practice (Kroeber, Handbook, 499).

T 788 765 768 764 Mourning ceremony.- At face washing mourner announced when he or she would hold "big fiesta" or mourning ceremony (mu·yil) to burn image, possessions of deceased person. Property of dead burned so deceased would have it in land of dead; "if the relatives failed to burn enough of a dead

778 237 from stick, 2 ft. long, wrapped with mud-hen feathers, with mt.-quail crests tied to tips of mud-hen feathers; surmounted with 2 eagle feathers. Wand tied on end of long stick, borne aloft in procession by "any man," then thrown in fire. "These were always carried at burnings" (SM, FP); why, no informant knew.

[171] Yellowhammer bands resembled Miwok band with jagged edge (Kroeber, Handbook, 590, pl. 58); better made than Koso specimen (ibid.). Such bands (wi·lat) worn by dancer around waist (FP); never worn as headbands (SM, FP); also carried on poles at burnings (SM), or hung on door of living house to keep ghosts away (FP); were made by men, bought by maker of fiesta for $2 apiece.

292 535 Dancer (muluwin) wore feather dance outfit, carried bunch of eagle feathers (ma·ša·wišt) tied around wrist, which he used to dust off women (see section on Chieftainship, Law, Conduct); some dancers wore hair woman giving fiesta had cut off in mourning; they tied it around both legs like garters.

535 [171] Dance (muluwil) performed at fiestas similar to Owens Valley Paiute totshoid[u] dance (Steward, 1933, 321); line of women moved sideways right and left; men danced in same spot; muluwin danced around fire. MM, who had spent 16 yrs. among Owens Valley Paiute, called this dance "war dance" as it is called by Owens Valley Paiute, when referring to it. Among Tübatulabal this form of dance does not seem to have been of recent introduction; informants asserted it was old form, and not restricted to burnings; at dances made occasionally "just for fun," Tübatulabal danced "in 2 long lines of men and women, just like they danced at a burning" (FP). MM said this was "the only dance the Tübatulabal had," which is, of course, only partly correct. Several Koso, as well as Tübatulabal, dancers were referred to by my informants; among Koso dancers Juan Paiyote (p. 51), whom Steward's informants mentioned, was often alluded to, but never as person who had introduced this dance among Tübatulabal.

881 Puberty rites, bird cult.- Boys' puberty rites lacking, unless quest for supernatural power could be considered as such.

881 171 Definite adolescence ceremony for girls, which has been noted for Tübatulabal (Handbook, 607), may possibly have been practiced formerly among Palagewan, but SM, ES, FP, LT repeatedly denied any knowledge of such rites for either band. SM was only informant who once said girls were put on warm pit at first menstruation, as among Owens Valley Paiute (Steward, 1933, 293); MM was interpreting at time, may have been giving me Owens Valley Paiute information; subsequently with ES interpreting, SM flatly contradicted his statement of year before, said pit only used by women having babies. Absence of girls' puberty rites among Tübatulabal of interest in view of Kroeber's assertions that throughout California elaborate development of these rites "stands out conspicuously"

881 among ruder hill tribes and is absent, or dwarfed,
171 among more specialized lowland tribes (Handbook, 609; also 7, 135, 861); although these statements may apply to other parts of California, they do not seem to be upheld by Tübatulabal data.

231 No traces of bird cult found, although eagles
794 were kept in captivity in order to obtain their feathers.

795 Ghost dance, social dances.- None of my in-
535 formants remembered anything about Ghost dance, or Jack Wilson. Two forms of round dances mentioned; one was war dance of incitement, the other similar dance with men, women dancing in concentric circles, women on inside; this was danced at fiestas sometimes (PN), but no dance was ever given in order to bring dead back to
[727] life (all informants). Massacre of 1863 (see Autobiography of FP) deprived Tübatulabal and Palagewan of nearly all their adult men and
[797] thoroughly cowed survivors; by 1890 majority of
[177] Tübatulabal had become Catholicised and plans were under way for granting each individual land; these plans were realized in 1893. Considering all these factors, as well as small size of group, there seems little reason to doubt informants' statements that neither Ghost dance of 1870 nor 1890 spread to Tübatulabal, although from their geographical position they might be expected to have had this dance.

[p. 71(a)]

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS 13

The Tübatulabal and their closely related western neighbors, the Bankalachi, form one of the four primary linguistic branches of the Shoshonean family, known as the Kern River branch.[2] The remaining branches are the Plateau, the Southern California, and the Pueblo. Compared with the territory of the Plateau branch that of the Kern River branch is infinitesimally small. Perhaps it is in consequence of this limited geographic range that scarcely a feature of the Tübatulabal kinship nomenclature proves to be unique, and this in spite of the linguistic divergence exhibited by the Tübatulabal language.

The Kawaiisu, the southern neighbors of the Tübatulabal, who are also to be discussed, speak a dialect of Ute-Chemehuevi,[3] and are included in the great Plateau branch of the Shoshonean stock. As will be pointed out in the comparative portion of this paper, it appears probable that the Kawaiisu and Tübatulabal kinship systems have affected each other on account of the contact of the two peoples.

Thanks are due Dr. Edward Sapir for the use of his unpublished notes on Kaibab Paiute and Uintah Ute relationship terms.

Phonetic Transcription

In this paper c = sh, tc = ch as in church, ô = aw as in law, ŭ = u as in run, and ñ = ng as in sing. The sound represented by ü is neutral and is not to be understood as identical with German ü.[4] A period on the line between two vowels indicates that they have their ordinary phonetic value and do not form a diphthong.

Tübatulabal

Forty Tübatulabal terms of relationship were obtained. These include identical-reciprocals with diminutive suffixes. The diminutive suffix -bin or -vin is often added to an identical-reciprocal term to indicate the younger generation of the reciprocal relationship expressed by the single term, as aka (father's father) and aka*bin* (son's child, m. s.). The terms applied to relatives by marriage upon the death of the connecting relative have been omitted in the above figure. The term for grandparent and grandchild following the death of the connecting relative is included, however, as it is a special term (hoki),

[2] A. L. Kroeber, Shoshonean Dialects of California, Univ. Calif. Publ. Am. Arch. Ethn., IV, 97, 98, 100, 1907.

[3] A. L. Kroeber, Shoshonean Dialects of California, Univ. Calif. Publ. Am. Arch. Ethn., IV, 97, 98, 100, 110, 1907.

[4] See the discussion of such sounds by A. L. Kroeber, Shoshonean Dialects of California, Univ. Calif. Publ. Am. Arch. Ethn., IV, 90, 91, 1907.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

K
601

nekomwhoni [illegible]sband (w. s.), husband's brother. Reciprocal: nebiwhoni (w[illegible]ter; brother's wife, m. s.). Nekumrepuni. Sister's husband (following death of speaker's sister, w. s.), husband's brother (following death of speaker's husband).

wüsimbiani. Husband's sister, brother's wife (w. s.). Reciprocal: wüsimbiani. Wüsibirepuni. Husband's sister (following death of speaker's husband), brother's wife (following death of speaker's brother, w. s.).

teeni. Child's spouse's parent. Reciprocal: teeni. Teerepuni. Child's spouse's parent (following death of speaker's child or speaker's child's spouse).

K
601
128

An analysis of the Kawaiisu terms is presented in the opposite table (p. 233). As in the case of the analysis of Tübatulabal terms on page 225, it is based on the eight categories set forth by Dr. A. L. Kroeber.[13] It is to be noted that the category "Generation" is expressed in all of the terms, a feature which is in sharp contrast with the subordination of "Generation" in the Miwok kinship system, in which it is expressed in only slightly more than one-third of the terms.[14]

The cross used in the opposite table indicates the expression of a category by a term.

COMPARISON

Tübatulabal and Kawaiisu

T
K
601
171

Forty terms of relationship were obtained among the Tübatulabal as against forty-three among the Kawaiisu. The following table exhibits numerically the application of the terms in the two languages:

Relationship	*Number of Terms* Tübatulabal	Kawaiisu
Parent	4	4
Child	1	2
Stepchild	2	—
Brother, sister, first cousin	4	4
Aunt, uncle	6*	6*
Niece, nephew	3†	8‡
Grandparent, grandchild	9	8
Great-grandparent, great-grandchild	2	4
Relation by marriage‖	12	11

* Two of the terms for aunt and uncle are also the terms for mother and father following the death of one or more of their children.

† One of the terms (tumu) for niece or nephew is also applied to one's own child.

‡ Two of the terms for niece and nephew are also applied to son and daughter.

‖ This does not include aunts, uncles, grandparents, or grandchildren by marriage, nor does it include any of the step-relations.

650

[13] Classificatory Systems of Relationship, Journ. Roy. Anthr. Inst., XXXIX, 78, 1909.

[14] E. W. Gifford, Miwok Moieties, Univ. Calif. Publ. Am. Arch. Ethn., XII, 171, 1916.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T
K
601
J71

The Tübatulabal and Kawaiisu classifications of parents are identical. In both languages there is a special term for father and a special term for mother. These terms are used for no other relationships. Their use, however, for the parents is subject to a restriction, for they are used only as long as all of their children are alive. Upon the death of a child, the surviving children henceforth call the parent by a different term. The new term in the case of the father is that applied to the father's older brother. The new term in the case of the mother is that applied to the mother's older sister. In both languages four terms are used for the parent relationship (see the preceding table). The terms are:

Relationship	*Tübatulabal*	*Kawaiisu*
Father before death of child	ana	muwuni
Father after death of child	kumu	kuguni
Mother before death of child	abu	piyüni
Mother after death of child	ümü	mawüüni

For son and daughter the Tübatulabal have but one term, there being no distinction made as to sex of children. The Kawaiisu, on the other hand, distinguish between male and female offspring.

Relationship	*Tübatulabal*	*Kawaiisu*
Son	tumu	tuwüni
Daughter	tumu	pedüni

T
601

Only Tübatulabal data are at hand in the matter of stepchildren. It appears that the Tübatulabal are far more exact in designating stepchildren than own children. There are separate terms for stepson and stepdaughter, whereas son and daughter are united in one term, there being no distinction as to sex. Aiyawutawa is the designation for stepson, anociwan for stepdaughter. The reciprocals of these terms are not father (ana) and mother (abu), but are instead the terms for father's older brother (kumu) and mother's younger sister (yugu). This identification of the stepparents with the older paternal uncle and the younger maternal aunt is one-sided, for the terms aiyawutawa and anociwan are not the terms of the reciprocal nepotic relationship. The nepotic relationship is designated by the term tumu (offspring). On the one hand, the classing of the stepparents with the older paternal uncle and the younger maternal aunt and the uniting of own children with the brother's children (m. s.) and with the sister's children (w. s.) suggests the levirate. On the other hand, the

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS23

T 601

lack of identification of the stepchildren with the brother's children (m. s.) and with the sister's children (w. s.) would indicate absence of the levirate. In other words, from this point of view, the Tübatulabal evidence is equivocal.

T K 601 171

As shown in the table on page 232, the Tübatulabal and Kawaiisu both use six terms for uncles and aunts, as follows:

	Tübatulabal	*Kawaiisu*
Father's older brother	kumu	kuguni
Father's younger brother	tôhan	heeni
Father's sister	pauwan	pahani
Mother's brother	kali	cinũni
Mother's older sister	ümü	mawüüni
Mother's younger sister	yugu	nupbieni

It is to be noted that the specialization as to age is on the side of the "parallel" aunts and uncles, that is, those related to ego through a parent of the same sex. There is an absence of age specialization in the nomenclature of the "cross" aunts and uncles, that is, those related to ego through a parent of the opposite sex. Both the Tübatulabal and Kawaiisu nomenclatures are identical in their treatment of aunts and uncles by consanguinity.

Next we must consider the aunts and uncles by affinity, in other words, the spouses of those listed just above:

	Tübatulabal	*Kawaiisu*
Father's older brother's wife	——	mawüüni
Father's brother's wife older than mother	ümü	——
Father's younger brother's wife	——	nupbieni
Father's brother's wife younger than mother	yugu	——
Father's sister's husband	kali	kuguni
Mother's brother's wife	pauwan	pahani
Mother's older sister's husband	——	kuguni
Mother's sister's husband older than father	kumu	——
Mother's younger sister's husband	——	heeni
Mother's sister's husband younger than father	tôhan	——

Here we find some decided differences between the two systems. The Tübatulabal use six terms, the Kawaiisu only five. The former classify the spouses of "parallel" uncles and aunts according to the age of a spouse in relation to the mother or the father of the speaker. The Kawaiisu classify the spouses of "parallel" uncles and aunts according to the relative ages of the uncles and aunts, and not according to the age of the spouse. The Tübatulabal scheme suggests double marriage, that is, the marriage of two brothers to two sisters. Noth-

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal-NS22
Kawaiisu US13

T
K
601
.I71

ing, however, is known of the marriage customs of either people, so that it is idle to dwell too much upon the possible forms of marriage suggested by the terminology. A curious feature of the Kawaiisu nomenclature is the identification of father's sister's husband with the father's older brother, the term kuguni being used where one would expect to find cinŭni. To an ardent supporter of the theory of the reflection of forms of marriage in kinship nomenclature this would prove brother-sister marriage, which is of course an absurdity. The identification of father's sister's husband with mother's brother in Tübatulabal is not so unusual. It might result from the marriage of two pairs consisting each of a brother and a sister. A common example of this type of marriage is found in the custom of cross-cousin marriage. Here again genealogies and the statements of informants as to such a form of marriage among either people are lacking.

The reciprocals for aunts and uncles by affinity are the same as for aunts and uncles by consanguinity. All of the terms of consanguinity (except Kawaiisu cinŭni, mother's brother) are also terms of affinity; hence one list answers for both.

Tübatulabal		*Kawaiisu*	
Term	Reciprocal	Term	Reciprocal
kumu	tumu	kuguni	kuutcini tuwŭni pedüni
tôhan	tumu	heeni	heetcini tuwŭni pedüni
pauwan	amust	pahani	pahatcini
kali	kalibin	cinŭni	cinŭtcini
ümü	tumu	mawüüni	mawüütcini tuwŭni pedüni
yugu	tumu	nupbieni	nupbieteini tuwŭni pedüni

The preceding list shows that "parallel" nieces and nephews (brother's children, m. s., and sister's children, w. s.) are classed solely as offspring by the Tübatulabal, a condition favoring the existence of the levirate. Among the Kawaiisu the classification is paradoxical, for "parallel" nieces and nephews are not only classified as offspring (son and daughter), but also by a strictly nepotic term which is an identical-reciprocal of the term for aunt or uncle. The classification as offspring seems to be secondary, and taken alone suggests the levi-

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T
K
601
171

rate. The use of the identical-reciprocal for the nepotic relationship, however, is rather against the presence of that institution. It is possible that the classification of nieces and nephews as offspring is due to Tübatulabal influence. The Tübatulabal resemble their Shoshonean neighbors on the north in their classification of "parallel" nephews and nieces; at least this is true if we may judge from a relationship system collected at North Fork, Madera County.

The following table presents the grouping of brothers, sisters, and first cousins:

	Tübatulabal	*Kawaiisu*
Older brother, older male cousin	patei	pavini
Younger brother, younger male cousin	nalawi	saks.ini
Older sister, older female cousin	kutei	pateini
Younger sister, younger female cousin	nalawi	nama.ini
Brother (w. s.), male cousin (w. s.)	impaiyis	——
Sister (m. s.), female cousin (m. s.)	impaiyis	——

The feature common to both Tübatulabal and Kawaiisu, as exhibited in the above table, is that cousins are classified as sisters and brothers, a feature found also among the Shoshonean Mono of North Fork. The points of difference between Tübatulabal and Kawaiisu are very clear. The former unite younger brother and younger sister in one term. This is analogous to another usage of the Tübatulabal, who unite son and daughter in one term. The Kawaiisu, however, have distinct terms for younger brother and younger sister. The Tübatulabal grouping of brothers, sisters, and cousins exhibits another feature, which is not found among the Kawaiisu but which is present among the North Fork Mono; namely, a single term for brother or male cousin (w. s.) and for sister or female cousin (m. s.).

Grandparents and grandchildren are grouped in the same manner in both Tübatulabal and Kawaiisu. These terms are discussed a few pages below in connection with identical-reciprocals and diminutives. The Tübatulabal possess nine terms for the grandparent-grandchild relation; the Kawaiisu possess eight. The ninth term in Tübatulabal is hôki, which is used by either grandparent or grandchild following the death of the connecting relative.

The Tübatulabal have but one term for great-grandparent and but one for great-grandchild, again paralleling the single term for offspring. The Kawaiisu have two for each of these relationships, as they distinguish sex.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T
K
601
171

A comparison of the terms for brothers-in-law and sisters-in-law in the two languages would be futile, owing to the uncertainty with regard to some of the Tübatulabal terms.

A radical difference in the classification of the grandchild's spouse and the spouse's grandparent is to be noticed. The Tübatulabal classify these relatives as brothers-in-law and sisters-in-law (see No. 26 on p. 228). The Kawaiisu classify the grandchild's spouse and spouse's grandparent as grandchild and grandparent, respectively. The Tübatulabal classification is similar to the Miwok.[15]

As stated earlier, diminutive suffixes are used by both the Tübatulabal and the Kawaiisu. At least among the latter people the diminutive suffix is also an endearment, as in piwhatcini (piwha[tci]ni), dear wife. It is also used in connection with the term for child's spouse's parent, teetcini (tee[tci]ni). Informants stated that the use in this case was for the sake of politeness. In the same way a person uses this endearment for the mother-in-law or father-in-law, yehetcini (yehe[tci]ni).

Information obtained from the Tübatulabal as to the use of the diminutive suffix -bin or -vin as a term of endearment requires substantiation. Otherwise the use of the diminutive among the Tübatulabal corresponded to its use among the Kawaiisu, except that it was employed less extensively. The following list exhibits clearly the agreements and disagreements in the use of the diminutives in the two languages. Every term is followed by its reciprocal.

Relationship	*Kawaiisu*	*Tübatulabal*
Mother's brother	cinūni	kali
Sister's child (m. s.)	cinūteini	kalibin
Father's younger brother	heeni	tôhan,
Older brother's child (m. s.)	heetcini	tumu
Father's mother	huteini	apa
Son's child (w. s.)	huteitcini	apavin
Mother's mother	kaguni	utsu
Daughter's child (w. s.)	kaguteini	utsubin
Father's older brother	kuguni	kumu
Younger brother's child (m. s.)	kuuteini	tumu
Father's father	kunoni	aka
Son's child (m. s.)	kunoteini	akabin
Mother's older sister	mawüüni	ümü
Younger sister's child (w. s.)	mawüüteini	tumu

[15] E. W. Gifford, Miwok Moieties, Univ. Calif. Publ. Am. Arch. Ethn., XII, 172–174, 1916. See apasti, kawu, kolina, olo, wokli.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T
K
601
171

Relationship	*Kawaiisu*	*Tübatulabal*
Great-grandmother	nama.iteini	saka
Great-grandson	pavateini	sakabin
Great-granddaughter	pateiteini	sakabin
Mother's younger sister	nupbieni	yugu
Older sister's child (w. s.)	nupbieteini	tumu
Father's sister	pahani	pauwan
Brother's child (w. s.)	pahateini	amust
Great-grandfather	saka.iteini	saka
Great-grandson	pavateini	sakabin
Great-granddaughter	pateiteini	sakabin
Mother's father	tôgoni	agist
Daughter's child (m. s.)	tôgoteini	agistbin

A glance at the preceding table betrays the fact that the Tübatulabal use the diminutive form for the grandchildren and great-grandchildren and for the sister's child (m. s.). These terms are identical-reciprocals of the terms for grandparents, great-grandparent, and mother's brother, plus the diminutive endings. This condition is matched exactly in the case of Kawaiisu terms, except in the matter of the great-grandparents and great-grandchildren; there, to be sure, the diminutive suffix is used, but a single stem is not used for the two terms of the reciprocal relation, as in Tübatulabal. In Kawaiisu there are six terms for aunts and uncles with reciprocals which are identical except for the addition of the diminutive suffix. With the exception of the case of mother's brother and reciprocal mentioned just above, these are all lacking in Tübatulabal. The difference is perhaps not so great as it appears, however, for in Kawaiisu, as already mentioned, the reciprocals of heeni, kuguni, mawüüni, and nupbieni (which are the terms for "parallel" aunts and uncles) may be also the terms for son and daughter (see pp. 229-230) as well as the terms listed above. In Tübatulabal the term used for son or daughter is also used as the reciprocal of the terms for "parallel" aunts and uncles (ümü, yugu, kumu, tôhan). This reduces the constant differences between the two systems, in regard to the use of diminutives, to two. The Tübatulabal use pauwan for father's sister and amust for brother's child, w. s.; in other words, two terms with different stems and without the diminutive suffix. The Kawaiisu use pahani and pahateini for the same relationships; in other words, two terms with the same stem and with the diminutive suffix. The Tübatulabal use of sakan and sakabin for the great-grandparent and reciprocal is analogous to the Kawaiisu use of pahani and pahateini.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

TK
601
.171

The Kawaiisu use of nama.itcini and saka.itcini for the great-grandparents and pavateini and pateiteini for the great-grandchildren is different still, for the diminutive suffix is used with both of a pair of reciprocal terms having different stems.

The use of identical-reciprocal terms, plus a diminutive for the younger generation of the pair, seems to be more developed among the Kawaiisu than among the Tübatulabal. The former consistently apply them to the six groups of aunts and uncles, nieces and nephews, and to the four groups of grandparents and grandchildren. The latter consistently apply them to the four groups of grandparents and grandchildren and to the single group great-grandparent and great-grandchild. In the classification of aunts and uncles they are inconsistent, identical-reciprocals being used in only one out of the six groups. Informants among the Tübatulabal said that frequently the terms for grandchildren, which are here listed with diminutive suffixes, were used without them. Among the Mono,[16] the northern neighbors of the Tübatulabal, terms for grandchildren and grandparents are also identical, but no diminutive suffix is employed. Viewed from the standpoint of number of uses of identical-reciprocals and diminutives, the Tübatulabal are intermediate between their northern and southern neighbors.

The Tübatulabal terms hôki (grandparent or grandchild following the death of the connecting relative), impaiyis (brother or male cousin, w. s.; sister or female cousin, m. s.), nawasu (child's spouse's parent), and wo.ict (co-wife, co-husband) have identical-reciprocals, but never employ the diminutive suffix. Analogous terms among the Kawaiisu are atamwoni (wife's brother; sister's husband, m. s.), teeni (child's spouse's parent), wohoni (co-wife, co-husband), and wüsimbiani (husband's sister; brother's wife, w. s.). The explanation of the non-use of the suffix is to be found in the fact that the terms, with the exception of hôki, apply to individuals of only one generation.

Identical-reciprocal terms are of two types, distinguishable by their meanings. One type, exemplified by Tübatulabal nawasu and wo.ict and by Kawaiisu teeni and wohoni, has identical meanings; for example, the meaning of nawasu and teeni is child's spouse's parent; the reciprocal of each of these terms is also child's spouse's parent. The meanings of identical-reciprocal terms of the second type are distinctly unlike; in fact, the two meanings are the antitheses, one of

[16] Only the Mono of North Fork, Madera County, California, have been visited by the writer.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T K 601 171

the other; for example, the Tübatulabal term aka means father's father; the reciprocal aka or aka[bin] means son's child (m. s.). A Kawaiisu example is the term atamwoni, meaning wife's brother and sister's husband, m. s.

Certain lexical similarities between Tübatulabal and Kawaiisu terms are obvious. The most striking resemblances are best shown by a table. In the case of the Tübatulabal term saka, together with its

Tübatulabal	*Kawaiisu*
kuñan (husband)	kupmani (husband)
patei (older brother)	patcini (older sister)
pauwan (father's sister)	pahani (father's sister)
saka (great-grandparent)	saka.ini (younger brother)
	saka.itcini (great-grandfather)

reciprocal sakabin (great-grandchild), we seem to have an example of out-and-out borrowing, the Tübatulabal using the Kawaiisu term for great-grandfather, which is merely the Kawaiisu term for younger brother plus the diminutive suffix. The reverse hypothesis is possibly the correct one, namely, that the Kawaiisu borrowed the Tübatulabal term for great-grandparent and applied it to the younger brother and then to the great-grandfather. This hypothesis, however, seems an unlikely one.

The following table summarizes the categorical analyses of the Tübatulabal and Kawaiisu terms presented in detail on pages 225 and 233. The columns headed "Number" give the number of terms in which each category is expressed. The columns headed "Percentage" express the number of occurrences of a category in percentages of the total number of terms.

	Tübatulabal		*Kawaiisu*	
	Number	Percentage	Number	Percentage
Terms	40	....	43	....
Generation	36	90	43	100
Blood or marriage	31	78	23	53
Lineal or collateral	10	25	12	28
Sex of relative	25	63	30	70
Sex of connecting relative	17	43	16	37
Sex of speaker	11	28	16	37
Age in generation	7	18	8	19
Condition of connecting relative	11	28	12	28

The category "Generation" is expressed in all of the Kawaiisu terms as presented in this paper. Inquiry on a genealogical basis

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T
K
601
●171

might break down this complete expression of the category. In Tübatulabal four out of forty terms fail to express this category; one of these four is the term hôki, which is applied to either grandparent or grandchild following the death of the connecting relative. The remaining three are the terms for brothers-in-law and sisters-in-law, which are applied also to spouse's grandparent and grandchild's spouse, a very different classification from the Kawaiisu which has already been discussed.

The difference in the expression of the category "Blood or marriage" in the two languages is largely due to the difference, just mentioned, in the classification of spouse's grandparent and grandchild's spouse, which among the Kawaiisu are classed as grandparent and grandchild. This difference alone takes eight Kawaiisu terms out of this category. The corresponding Tübatulabal terms for grandparent and grandchild naturally fall under this category, as they all definitely express consanguinity without expressing affinity also.

The other categories are expressed quite similarly by the relationship systems of the two languages, with the exception of the categories "Sex of relative" and "Sex of speaker." The difference in the first instance is the result of the Tübatulabal uniting of great-grandson and great-granddaughter on the one hand and great-grandfather and great-grandmother on the other hand, while the Kawaiisu distinguish two great-grandchildren and two great-grandparents. In the second instance, "Sex of speaker," the difference is due to the use of identical-reciprocals for nepotic relatives by the Kawaiisu and to their non-use, except in one case (kali-kalibin), by the Tübatulabal.

Like the last table, the following table presents a categorical comparison, also in percentages of the number of terms, of the Tübatulabal and Kawaiisu kinship systems and those presented by Dr. A. L. Kroeber in his paper on the "Classificatory Systems of Relationship."[17] For Dr. Kroeber's Miwok figures those of the writer[18] have been substituted. It is clear that in at least one category, "Lineal or collateral," the Tübatulabal and Kawaiisu hold a unique position and have no near approach in any of the other systems here presented, except the Miwok.[19]

000
T
K
601
171
128

[17] Journ. Roy. Anthr. Inst., XXXIX, 79. 1909.

[18] Miwok Moieties, Univ. Calif. Publ. Am. Arch. Ethn., XII, 171, 1916.

[19] The comparisons in the three succeeding tables must be used with reservation, as a factor of uncertainty has been introduced by differences in the collecting of the data. For Miwok the material is far more detailed than for the other groups.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13
T
K
601
171

	Yuki	*Pomo*	*Washa*	*Miwok*	*Yokuts*	*Tübatulabal*	*Kawaiisu*	*Luiseño*	*Mohave*
Number of terms	24	27	28	34	28	40	43	34	35
Generation	100	78	96	38	79	90	100	88	74
Blood or marriage	100	100	100	76	100	78	53	94	97
Lineal or collateral	100	78	100	18	93	25	28	100	80
Sex of relative	67	78	71	85	61	63	70	53	63
Sex of connecting relative	54	48	50	44	50	43	37	56	60
Sex of speaker	13	11	36	26	43	28	37	29	40
Age in generation	13	15	14	15	14	18	19	35	23
Condition of connecting relative	0	0	0	0	*	28	28	0	3

* This category is expressed in terms denoting relatives by marriage, but the number of such terms is not given. See A. L. Kroeber, Classificatory Systems of Relationship, Journ. Roy. Anthr. Inst., XXXIX, 79, footnote, 1909.

The purpose of the two following tables is to indicate by figures the actual differences between the Tübatulabal and Kawaiisu systems and each of the other systems presented in the foregoing table. The figures in these tables are the differences between the percentages in the Tübatulabal and Kawaiisu columns of the preceding table and the percentages in each of the other columns of the preceding table. The total at the foot of each column in the succeeding tables is the sum of the percentage differences, that is, the differences in percentages for each category as expressed in Tübatulabal and Kawaiisu and each of the other languages. These totals are the basis of comparison of the systems as wholes. The first table is for the Tübatulabal system, the second for the Kawaiisu. It is to be seen at a glance that the Tübatulabal and Kawaiisu systems resemble each other far more closely than any of the other Californian systems resemble either of these. In fact, the gap between the Tübatulabal and Kawaiisu systems on the one hand and the remaining Californian systems on the other hand may be said to be very conspicuous. Tübatulabal and Kawaiisu differ from each other by a total of sixty-one percentage differences, while the nearest approach to this is found between Tübatulabal and Miwok, the total of percentage differences being one hundred and seventeen, nearly twice as great as the difference between Tübatulabal and Kawaiisu. It will be noted that the Tübatulabal system is not so far removed from the other Californian systems as is the Kawaiisu. The greatest difference between the Tübatulabal and any of the other Californian systems is one hundred and seventy percentage differences, occurring between Tübatulabal and Yuki. The greatest difference

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

T
K
601
.171

between Kawaiisu and any other system is two hundred and thirteen percentage differences, occurring between Kawaiisu and Luiseño, both Shoshonean groups. The least difference is between Kawaiisu and Miwok, amounting to one hundred and fifty percentage differences. This least difference, however, is nearly two and one-half times as great as the difference between Tübatulabal and Kawaiisu.

TÜBATULABAL

	Yuki	*Pomo*	*Washo*	*Miwok*	*Yokuts*	*Kawaiisu*	*Luiseño*	*Mohave*
Generation	10	12	6	52	11	10	2	16
Blood or marriage	22	22	22	2	22	25	16	19
Lineal or collateral	75	53	75	7	68	3	75	55
Sex of relative	4	15	8	22	2	7	10	0
Sex of connecting relative	11	5	7	1	7	6	13	17
Sex of speaker	15	17	8	2	15	9	1	12
Age in generation	5	3	4	3	4	1	17	5
Condition of connecting relative	28	28	28	28	28*	0	28	25
Total	170	155	158	117	157*	61	162	149

KAWAIISU

	Yuki	*Pomo*	*Washo*	*Miwok*	*Yokuts*	*Tübatulabal*	*Luiseño*	*Mohave*
Generation	0	22	4	62	21	10	12	26
Blood or marriage	47	47	47	23	47	25	41	44
Lineal or collateral	72	50	72	10	65	3	72	52
Sex of relative	3	8	1	5	9	7	17	7
Sex of connecting relative	17	11	13	7	13	6	19	23
Sex of speaker	24	26	1	11	6	9	8	3
Age in generation	6	4	5	4	5	1	16	4
Condition of connecting relative	28	28	28	28	28*	0	28	25
Total	197	196	171	150	194*	61	213	184

* "Terms denoting relatives by marriage undergo a vocalic change to indicate the death of the connecting relative." See A. L. Kroeber, Classificatory Systems of Relationship, Journ. Roy. Anthr. Inst., XXXIX, 79, footnote, 1909. Dr. Kroeber does not indicate the number of terms so altered, hence the figures in the Yokuts column of the table for the category "Condition of connecting relative" are too large. Likewise the totals of percentage differences between Tübatulabal and Yokuts and between Kawaiisu and Yokuts are too large.

KAWAIISU, KAIBAB PAIUTE, AND UINTAH UTE

K
601
171

A comparison of the Kawaiisu terms with those of the Uintah Ute of northern Utah and Kaibab Paiute of southwestern Utah and north-

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
KAWAIISU NS13

K
601
171
T
601
171

western Arizona obtained by Dr. Edward Sapir[20] shows a very close similarity in sound and spelling, even to the matter of the diminutive suffix. Similarity of the three groups might be expected because of the community of language, for all speak Ute-Chemehuevi dialects. The Tübatulabal, however, do not speak Ute-Chemehuevi, and, furthermore, belong to another of the four primary divisions of the Shoshonean stock;[21] hence their terms of relationship could not be expected to exhibit as strong a degree of resemblance to the Kawaiisu terms as Uintah Ute and Kaibab Paiute terms exhibit.

The thirty-two Kaibab Paiute terms secured by Dr. Sapir are listed below. Twelve of these, although very similar in sound and spelling to certain of the Kawaiisu terms, are applied in a quite different manner. (Consult in the following list numbers 4, 10–17, 22–25.)

	Kaibab Paiute	*Kawaiisu*
1.	moan'ᵘ (father)	muwuni (father)
2.	piyan'ᵘ (mother)	piyūni (mother)
3.	tuwatsin'ᵘ (son)	tuwūni (son)
4.	pătein'ᵘ (daughter)	pedūni (daughter)
5.	păvi(tsi)n'ᵘ (older brother)	pavini (older brother) pavateini (great-grandson)
6.	te'ᵃᵃqa.itein'ᵘ (younger brother)	saka.ini (younger brother) saka.iteini (great-grandfather)
7.	pătsitsin'ᵘ (older sister)	pateini (older sister) pateiteini (great-granddaughter)
8.	yûp'ian'ᵘ (younger sister)	nama.ini (younger sister)
9.	namintsin'ᵘ (younger sister)	nama.iteini (great-grandmother)
10.	toxon'ᵘ (grandfather)	tôgoni (mother's father)
11.	toxotsin'ᵘ (grandchild, m. s.)	tôgoteini (daughter's child, m. s.)
12.	qăxun'ᵘ (grandmother)	kaguni (mother's mother)
13.	qăxutsin'ᵘ (grandchild, w. s.)	kaguteini (daughter's child, w. s.)
14.	qunun'ᵘ (great-grandfather, great-grandfather's brother)	kunoni (father's father)
15.	qunutsin'ᵘ (great-grandchild, m. s.; brother's great-grandchild, m. s.)	kunoteini (son's child, m. s.)
16.	ᵗʷᵘtsin'ᵘ (great-grandmother, great-grandfather's sister)	huteini (father's mother)
17.	ᵗʷᵘtsitsin'ᵘ (great-grandchild, w. s.; brother's great-grandchild, w .s.)	huteiteini (son's child, w. s.)
18.	ain'ᵘ (father's brother)	heeni (father's younger brother)
19.	aitsin'ᵘ (brother's child, m. s.)	heeteini (older brother's child, m. s.)
20.	păan'ᵘ (father's sister, probably also mother's sister)	pahani (father's sister)
21.	păatsin'ᵘ (brother's child, w. s.; probably also sister's child, w. s.)	pahateini (brother's child, w. s.)

[20] A Note on Reciprocal Terms of Relationship in America, Am. Anthr., n. s., xv, 132–138, 1913; also Dr. Sapir's unpublished data, which are presented in the succeeding lists of terms.

[21] A. L. Kroeber, Shoshonean Dialects of California, Univ. Calif. Publ. Am. Arch. Ethn., iv, 97, 98, 100, 1907.

2: Gifford E-5 (1915) 1917
NS22 Tübatulabal NS22
Kawaiisu NS13

K
601
171

1. nebiwhoni (brother's wife, m. s.; wife's sister)
2. nekomwhoni (sister's husband, w. s.; husband's brother)
3. wüsimbiani (brother's wife, w. s.; husband's sister)

The uniting in Ute of the relationships expressed in 1 and 2 is in line with and a natural consequence of the combining of husband and wife in one term (number 33).

T
K
601
171

By way of summary, we find that the Uintah Ute nomenclature exhibits six peculiarities of application which are lacking in Kawaiisu; the Kaibab Paiute nomenclature exhibits twelve; and the Tübatulabal list (although the speech is quite distinct from the preceding three groups), exhibits only ten peculiarities. It seems as though contiguity of territory is responsible for the small number of discrepancies between the Tübatulabal and the Kawaiisu nomenclatures, just as it doubtless accounts for the features they have in common, such as the terms and suffixes denoting the condition of the connecting relative. On the other hand, community of language doubtless accounts for the similar phenomena among the Uintah Ute and the Kawaiisu. Certainly contiguity of territory does not account for them, for the two groups, at least at the present time, are far removed from each other. But if community of language explains the Uintah Ute nomenclature, what can be said of the Kaibab Paiute nomenclature, which is in a dialect very similar to both Uintah Ute and Kawaiisu? Kaibab Paiute shows more peculiarities when compared to its congener Kawaiisu than does even the extraneous Tübatulabal. Clearly the position of Kaibab Paiute is anomalous. Although linguistically close to both Kawaiisu and Uintah Ute, and geographically intermediate, it displays more than twice as many peculiarities when compared with Kawaiisu as does Uintah Ute. Dr. Sapir remarks with regard to Uintah Ute and Kaibab Paiute terms of relationship: "Here, as so often, a cultural dividing line runs clear across a homogeneous linguistic group."[27] The writer would go a step farther and remark that, if our evidence is correct, the northeastern extremity (Uintah Ute) of the group is in closer agreement with the southwestern extremity (Kawaiisu) than either one is with the middle (Kaibab Paiute). Hence the homogeneous linguistic group may be spoken of as trisected rather than bisected.

[27] A Note on Reciprocal Terms of Relationship in America, Am. Anthr., n. s., xv. 137, 1913.

4: Kroeber E-5 (no date)1925 NS22 Tübatulabal NS22
Yokuts N529

of these terms to wider groups. Thus the "Yokol" of the Tübatulabal seem to have included also the Gawia, Yaudanchi, and perhaps other tribes.

The Tübatulabal of to-day may aggregate 150. Perhaps the number is nearer 100. On the ancient population there are no data. A thousand seems as reasonable a guess as any other: at least it appears ample.

ARTS.

The Tübatulabal are one of the seemingly endless number of California tribes whose customs have never been described in any detail. Intercourse and intermarriage between them and the Yokuts were so frequent that they must have been strongly influenced by this much larger nation.

Their basketry is scarcely distinguishable from that of the southern Yokuts; it appears to average a little better in fineness. Tree yucca root replaced *Cercis* bark for red patterns. They made pottery of the same type as the Yokuts. Like these people, they ate tobacco mixed with lime. Their houses, or at least one form of dwellings, were covered with tule mats.

It is not certain that they had any form of sweat house: what may be remains of such have been reported. Balsas of bundled tules, with a keel, a slender prow, and a square stern, were made. The dead were buried.

SOCIETY.

In their social life they stood more apart. The exogamous moieties of the Yokuts were not represented among them. There are possible traces of the totemic manifestations that accompany this dual organization. Young eagles were caught and reared. They were not killed, but were ultimately liberated. The plucking of their feathers seems to have been only a minor end of their captivity. Other birds, such as condors, crows, hawks, and geese, and even young coyotes, were kept as pets; in some cases inherited by the son from the father. In mythology the eagle is the chief, the coyote his antithesis; one has as associates a variety of birds, the other lizards, vermin, and trivial or noxious beasts.

In some matters Yokuts practices have failed to obtain a foothold, or a secure one, among the Kern River people. The parent-in-law taboos are not observed, or only by those individuals intimately associated with the Yokuts by intermarriage. This factor, incidentally, has introduced a number of Yokuts personal names among the Tübatulabal, who care very little whether an individual's appellation has any meaning as long as it is the name of an ancestor. The designation of kindred is almost identical with that of the Kawaiisu, and

4: Kroeber E-5 (no date) 1925 NS22 Tübatulabal NS22

apparently of the Chemehuevi: the terms used are often quite different, but their significance is the same. The two groups thus think alike as regards relationship. A particular trait shared with the Yokuts is the custom of altering the kinship term when the connecting relative has died; but this has already been seen to be a Kawaiisu device, and the custom may well have had a Shoshonean origin and been borrowed by the Yokuts.

Chieftainship, on the other hand, resembles the Yokuts rather than the Kawaiisu institution. The prime requisite is to be the son of a *tiwimal* or chief; the approval of the community and the possession of wealth are also factors. The father selects the son who is to receive the dignity; if there is no male heir, a daughter succeeds. The feeling as regards descent must be strong, since the husband of a chieftainess is accorded no official authority, and the title passes to her son.

RELIGION.

Information fails as to whether the Tübatulabal practiced the southern Yokuts form of Jimson-weed ritual. They did have what the Yokuts seem to have lacked: a definite adolescence ceremony for girls. It is the old story: among the hill men this simple and personal observance stands out conspicuously, while in the more elaborate civilization of the lowlanders it is dwarfed or crowded aside.

The fact that the Tübatulabal are said in this ceremony to put their girls into a pit and cover them suggests an influence from southern California.

The mourning ceremony is called *Anangat*, is made primarily for a single person of prominence about two years after his death, and as among Maidu, Yokuts, and Luiseño, represents him by an image. Such a figure is made of bundled tules, and its sex denoted by bead necklaces and feathers, or an apron. The figure is burned at daybreak of the last night of the rites, together with baskets and other valuables.

So far we have substantially the same features as mark the ceremony among the other tribes mentioned. A trait that may be distinctive of the Tübatulabal is the fact that the mourner puts the observances in charge of visitors from other localities. This may be the substitute of an undivided people for the reciprocal division of function among a dually organized one; or the basic idea of the participation of nonmourners may be older and have been seized upon and fortified by those groups that were subsequently cleft into social moieties.

An invited chief had charge of the burning at the climax. His people gathered wood, tended the fire, burned the image, washed the